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TENTH ANNUAL REPORT

UNIVERSITY OF MARYLAND

EXTENSION SERVICE

FOR THE YEAR 1924



INCLUDING SUMMARY OF THE WORK
FOR THE PAST DECADE

Cooperative Extension Work in Agriculture and Home Economics,
Extension Service, University of Maryland, and the
United States Department of Agriculture
Cooperating

T. B. SYMONS, Director

Distributed in furtherance of Acts of Congress of
May 8 and June 30, 1914.

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County	Name	Headquarters
Allegany	*R. F. McHenry	Cumberland
Anne Arundel	*J. F. Huffington	Annapolis
Baltimore	*W. C. Rohde	Towson
Calvert	*S. R. Newell	Prince Frederick
Caroline	*L. M. Goodwin	Denton
Carroll	*F. W. Fuller	Westminster
Cecil	*A. D. Radebaugh	Elkton
Charles	*G. R. Stuntz	La Plata
Dorchester	*E. W. Montell	Cambridge
Frederick	*P. W. Chichester	Frederick
Garrett	*W. C. Jester	Oakland
Harford	*B. B. Derrick	Belair
Harford	*O. W. Anderson, Assistant	Belair
Howard	*E. K. Walrath	Ellicott City
Kent	*H. B. Derrick	Chestertown
Montgomery	*W. C. Snarr	Rockville
Montgomery	*P. C. Cissel, Assistant	Rockville
Prince George's	*W. B. Posey	Upper Marlboro
Queen Anne's	*E. W. Grubb	Centerville
St. Mary's	*G. F. Wathen	Loveville
Somerset	*C. Z. Keller	Princess Anne
Talbot	*E. P. Walls	Easton
Washington	*M. D. Moore	Hagerstown
Wicomico	*G. R. Cobb	Salisbury
Worcester	*E. I. Oswald	Snow Hill

LOCAL AGENTS

*J. F. Armstrong (col.)	Southern Maryland	Seat Pleasant
*L. H. Martin (col.)	Eastern Shore	Princess Anne

*In cooperation with the U. S. Department of Agriculture.
† Devoting part-time to Extension Work.

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FOR THE PAST DECADE

LETTERS OF TRANSMITTAL

DR. A. F. WOODS,
President:

I have the honor to submit herewith the Tenth Annual Report covering the work of the Extension Service of the University of Maryland, in cooperation with the U. S. Department of Agriculture, for the calendar year 1924, together with a financial report for the fiscal year ending June 30, 1924, and including a summary of the work for the past decade.

Respectfully submitted,
THOMAS B. SYMONS,
Director, Extension Service.

College Park, Md.,
January 1, 1925.

HON. S. M. SHOEMAKER,
Chairman, State Board of Agriculture:

In accordance with the requirements of the Act of Congress, approved May 8, 1914, and known as the Smith-Lever Act, I have the honor to transmit herewith, for submission to the Governor of the State, the Tenth Annual Report covering the work of the Extension Service of the University of Maryland, in cooperation with the U. S. Department of Agriculture, for the calendar year 1924, together with a financial report for the fiscal year ending June, 1924, and including summary of the work for the past decade.

Respectfully submitted,
A. F. WOODS,
President.

College Park, Md.,
January 1, 1925.

TO HIS EXCELLENCY ALBERT C. RITCHIE,
Governor of Maryland:

I have the honor to transmit herewith the Tenth Annual Report covering the work of the Extension Service of the University of Maryland, in cooperation with the U. S. Department of Agriculture, including summary of the work for the past decade, submitted to me through the President of the University.

Respectfully submitted,
S. M. SHOEMAKER,
Chairman, State Board of Regents.

Baltimore, Md.,
January 1, 1925.

TENTH ANNUAL REPORT
OF THE
UNIVERSITY OF MARYLAND
EXTENSION SERVICE
FOR THE YEAR 1924

BY THOMAS B. SYMONS, *Director*

INTRODUCTION

A marked improvement in the price of most farm crops has been the outstanding factor in the agricultural situation of the past year. While the increase has affected farm crops chiefly and has been but partially reflected in the income of the Maryland farmer, the higher tone of the markets and the upward turn of prices have given fresh encouragements to agriculture after a long and serious period of depression.

The year, however, has not been without its discouragements. To these the weather has contributed in no small degree. Excessive rainfall in the early spring interrupted customary farm operations and seriously delayed the normal planting time for many crops. There followed during the summer months protracted spells of dry weather and frosts in the early fall brought to a premature end an already much shortened growing season. The handicaps imposed by the weather in many cases entirely wiped out any possible advantage that Maryland farmers might have secured from higher prevailing prices.

With this situation must be coupled the indifferent prices prevailing throughout the year for most livestock and livestock products. There has been no advance in the price of livestock and livestock products to correspond to the upward trend of crop values. This has placed the livestock producer under the necessity of disposing of his animals at low prices or maintaining them on higher priced feeds. The dairy industry, which has expanded greatly in the State during recent years and which has been a strong factor in relieving the financial pressure in many of the more important agricultural

sections, has been no exception to the general situation prevailing in the livestock industry. Confronted with an over-supply of milk on all of the leading markets open to Maryland milk producers, dairy organizations have been unable to obtain improved prices to offset higher feed costs.

While it is probably true that Maryland farmers have not benefited greatly by the price advances of the past year, conditions have been sufficiently near normal to permit some progress in the liquidation of debts entailed during former years and to brighten the agricultural outlook materially. Careful management and the employment of economical methods of production have continued to be necessary and along these lines the agriculture of the State has made decided progress during the year. Unfortunately weather conditions nullified many well-intentioned efforts and obscured results of good practices that otherwise would undoubtedly have been apparent.

Corn, the major crop of the State, was particularly susceptible to the unseasonable weather conditions. Not only was the average yield per acre greatly reduced, but there was a notice-



INTRODUCING BETTER SEED CORN

able decrease in the acreage due to the fact that many farmers were unable to get the seed in the ground. The total production was nearly seven million bushels below the yield of the previous year and while this decreased production was counterbalanced by a higher farm price that made the total value of the crop only slightly less than the 1923 value, the outstanding fact is that only farmers who produced corn to sell profited by the increased price. Others merely experienced the disadvantage of having less corn to feed.

Improvement of Corn

While the weather seriously affected the quantity and the quality of the corn produced, it did not interfere with the progress that is being made in the use of improved seed. More and more farmers in the State are showing interest in the production of purebred seed corn and sources of desirable seed are steadily increasing. While Harford County still retains the lead in this respect, growers of seed corn are being developed in other counties of the State and are finding satisfactory markets for their crops in their respective territories. The improvement that has taken place in the production of seed corn and the growing demand for quality seed among farmers of the State are having decided effect upon the quantity and quality of corn grown in Maryland. While Maryland corn exhibitors during the past year were less successful than formerly in winning prizes at the International Grain and Hay Show at Chicago, the State stood next to Indiana in the number of prizes awarded in Region 8.

Progress with Wheat

Progress of a very similar kind can be pointed out in connection with wheat. Good strains of purebred wheat have been established in many counties of the State and an increasing number of growers are giving the time and attention to the crop necessary for certification. Seed wheat was certified for fifteen growers in eight counties the past year under the auspices of the Maryland Crop Improvement Association while requests for certification were received from many more growers, indicating the growing interest among farmers in this phase of agricultural development.

Soybean Exhibits

For a good many years the Extension Service has been encouraging the home production of varieties of soybeans adapted to Maryland conditions. Results have been most gratifying in many sections and many farmers have developed a satisfactory business in growing soybean seed. Prior to the past year, however, no effort has been made to exhibit soybean seed grown in Maryland at any of the major grain shows throughout the country. It was, therefore, particularly gratifying that Maryland exhibitors at the International Grain and Hay Show at Chicago succeeded in winning first, second and four other places in the soybean classes.

Dairy Development

Eleven cow testing associations in operation in the State at the close of the year furnish good evidence of the interest that has been aroused in the economical production of milk. During no previous year have so many cow testing associations been in operation and the results that are being obtained through this line of endeavor are having an important effect upon the dairy industry of the State. Decided progress likewise has been made during the year in improving the methods of production, handling and shipping of milk, particularly in the territory supplying the Baltimore market. The Extension Service has cooperated in this work with the Maryland State Dairyman's Association, the Baltimore distributors, and the Baltimore City Health Department.

Progress in Marketing

Marketing work during the past year has shown commendable progress. Established cooperative associations have operated with a notable absence of friction and with most satisfactory results to their members. While no especially important developments have taken place, the three dairy marketing associations operating in the State are in good condition financially and otherwise. The Maryland Tobacco Growers' Association has increased its membership and has succeeded in marketing the major portion of the crop grown in the State.

The membership in the Atlantic Coast Poultry Producers' Association has been increased and a complete re-organization

of the association has placed this selling agency on a sound basis. Wool pools have been operated successfully in a number of counties, truck crops have been marketed successfully through a number of enterprises on the Eastern Shore and the cooperative sale of wheat and other farm products has proved effective in Washington and Frederick Counties. It is a significant fact that every county in the State is now participating in some form of cooperative marketing.

A development of importance during the year was the establishment of the State Department of Markets and the subsequent inauguration of the shipping point inspection service. This was made possible by an appropriation of \$10,000 by the last legislature. An appropriation for marketing has been requested for the past six years and during this period every effort has been made to meet the requests for special work in various phases of marketing. Considering the lack of funds, the results have been highly commendable, but naturally activities had to be confined to certain limited phases of marketing. With the appropriation available October 1, it will be possible more nearly to meet the demands in this field.

Anticipating the development in the marketing work, the Extension Service entered into cooperative relation with the Bureau of Agricultural Economics, United States Department of Agriculture, and succeeded in completing a commendable amount of shipping point inspection for fruit growers during the summer and early fall months.

The president of the University of Maryland and the State Board of Agriculture authorized the erection of the State Department of Markets. It functions under the Extension Service, like the State Horticultural Department, so that regulatory features can be properly taken care of so far as funds will permit. This enables the greatest amount of work to be done under the appropriation with the least expense for overhead and office assistance.

Dr. F. B. Bomberger, Assistant Director of the Extension Service, who has served as specialist in marketing for several years with marked success, was made chief of the new department. Mr. S. B. Shaw, specialist in horticulture for the Extension Service, was transferred to the new department as specialist and chief inspector.



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The shipping point inspection of the past year was necessarily confined to few crops—peaches and apples—and to a few localities. The work was conducted in cooperation with the Bureau of Agricultural Economics, U. S. Department of Agriculture, and was well received by the growers to whom it was available. Unquestionably the work accomplished not only proved advantageous to growers in marketing their crops but did much to impress on them the importance of careful grading and packing.

Potato Seed Certification

Few other lines of Extension Service work have brought more important results than those obtained during the past year in directing the attention of potato growers to the importance and value of good seed. Dissatisfaction with previous requirements for the certification of seed potatoes led early in the year to a revision of rules and regulations under which potatoes might be grown for certification. Accordingly the Maryland Seed Certification Board, composed of the Extension specialists in plant pathology, horticulture, entomology, agronomy and marketing, was organized.

The new regulations were far more rigid than those formerly in effect. The results obtained, however, were highly encouraging and demonstrated clearly the increasing importance which Maryland potato growers are according to good seed. Twenty-six growers in six counties of the State succeeded in meeting the requirements for certification and produced an aggregate of approximately fourteen thousand bushels of seed, the largest quantity ever certified in the State. The fact that the production was distributed to six counties of the State and that the bulk of the certified crop was grown in the early potato producing section of the Eastern Shore lends additional value to the results obtained.

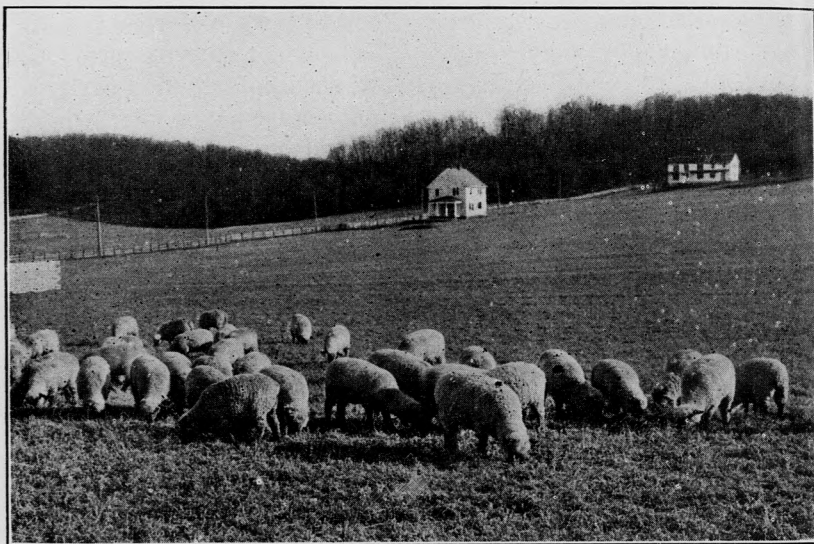
Tomato Production Work

The past season proved anything but a favorable one for the tomato crop of the State. Demoralized market conditions likewise prevailed during much of the year. Splendid progress, however, was made along a number of important lines. Community tomato plant beds were again operated in the leading tomato producing regions and supplied hundreds of growers

with over 9,000,000 plants of superior quality. Forty-one community plant beds were operated throughout the State. In addition much progress was made in the selection of seed from desirable plants. Substantial progress in this work was made possible through the cooperation of the Tri-State Packers' Association. Thirty pounds of selected seed will be available the coming year for distribution in the State.

Purebred Sheep Introduced

With the organization of a ram ring in Allegany county and the cooperative purchase of one hundred purebred Hampshire ewes by Maryland sheep growers, the sheep industry of the



PUREBRED HAMPSHIRE, OWNED BY G. B. FENNICK, BALTIMORE COUNTY

State during the year made encouraging advancement. Few other branches of agriculture have a better outlook than the sheep industry and good sheep properly managed are likely to prove an asset on any farm for years to come. It is gratifying, therefore, to see growers manifesting interest in the improvement of their flocks by the introduction of good purebred stock. The animals brought into the State through the cooperation of the interested growers, the Maryland Sheep Growers' Association and the livestock specialists at the University of Maryland, were secured from an Idaho breeder of national reputation and

were of excellent quality. It is hoped that they will become sources of good breeding stock in the State and will serve to increase the number of purebred sheep in Maryland.

Women's Work

The year has been an important one from the standpoint of advancement in home demonstration work. The response of rural women to organization and to organization activities and leadership in cooperation with the Farm Bureau, Grange and other organizations has been more pronounced during the year 1924 than during any previous period of like duration. Organizations of rural women formed in previous years have been strengthened and new organizations have been established in many communities. Some idea of the growth and extent of this work may be gained from the fact that there are fifty local leaders serving under the home demonstration agent in Prince George's County, while in Frederick County sixteen women's clubs had home demonstration exhibits at the Frederick Fair. The exhibit by the Frederick women was generally regarded as one of the finest of its kind ever shown at a county fair in this country. The Rural Women's Short Course at the University of Maryland was repeated during 1924 and the interest and attendance were sufficient evidence of the value of this annual event.

Cooperation of Bankers

The past year has been notable for the stimulation of interest among bankers in the agricultural situation of the State. Under the leadership of the agricultural commission of the American Bankers' Association several conferences of State bankers have been held with representatives of the Extension Service, the idea being to outline a definite program for the advancement of agriculture in which banks of the State might take an active part. The project has received the endorsement of the agricultural committee of the Maryland State Bankers' Association which has approved a program including boys' and girls' club work, the introduction of better seed and better livestock, the improvement of canning crops and the marketing of farm products. This program is in addition to the splendid financial support which the Maryland State Bankers' Association has been giving to club work in the State for a number of years past.

Crop Yields of 1924

As a matter of record, the crop yields of the State have been included in the annual report of the Extension Service for the past five years. These figures are secured from the Bureau of Agricultural Economics, U. S. Department of Agriculture, and show production, yield and values for the past year and comparisons with previous years. Acreage, yields, production, farm prices and total values for 1914, where available, are also shown for purposes of comparison in the following table.

Maryland Crop Statistics

Crop and Year	Acres	Production		Unit	Farm Value Dec. 1		Value Per Acre
		Per Acre	Total		Per Unit	Total	
CORN:							
1914	--663,000	37.0	24,531,000	Bus.	\$0.68	\$16,681,000	\$25.16
1924	--598,000	31.0	18,538,000	"	1.11	20,577,000	34.41
1923	--642,000	39.3	25,231,000	"	.82	20,689,000	32.23
1922	--642,000	40.0	25,680,000	"	.68	17,462,000	27.20
WHEAT:							
1914	--612,000	21.5	13,158,000	"	1.06	13,947,000	22.79
1924	--540,000	15.8	8,532,000	"	1.45	12,371,000	22.91
1923	--600,000	19.2	11,520,000	"	1.00	11,520,000	19.20
1922	--573,000	16.5	9,537,000	"	1.12	10,681,000	18.48
OATS:							
1914	-- 43,000	27.0	1,161,000	"	.52	604,000	14.04
1924	-- 61,000	34.0	2,074,000	"	.64	1,327,000	21.75
1923	-- 59,000	29.8	1,758,000	"	.54	949,000	16.09
1922	-- 58,000	30.0	1,740,000	"	.51	887,000	15.30
BARLEY:							
1914	-- 5,000	33.0	165,000	"	.66	109,000	21.78
1924	-- 5,000	35.0	175,000	"	.93	163,000	32.60
1923	-- 4,000	33.0	132,000	"	.80	106,000	26.40
1922	-- 4,000	32.0	128,000	"	.75	96,000	24.00
RYE:							
1914	-- 25,000	17.0	425,000	"	.86	366,000	14.62
1924	-- 20,000	15.0	300,000	"	1.22	366,000	18.30
1923	-- 17,000	15.8	269,000	"	.97	261,000	15.33
1922	-- 17,000	15.2	258,000	"	1.10	284,000	16.72
BUCKWHEAT:							
1914	-- 11,000	18.5	204,000	"	.81	165,000	14.98
1924	-- 10,000	18.0	180,000	"	.60	2,059,000	46.80
1923	-- 9,000	22.1	199,000	"	1.00	199,000	22.10
1922	-- 9,000	20.6	185,000	"	.86	159,000	17.72

EXTENSION SERVICE, UNIVERSITY OF MARYLAND 13

POTATOES:

1914	--	44,000	78.0	3,432,000	Bus.	.60	2,059,000	46.80
1924	--	46,000	83.0	3,818,000	"	1.00	3,818,000	83.00
1923	--	49,000	80.0	3,920,000	"	.81	3,175,000	64.79
1922	--	51,000	101.0	5,151,000	"	.60	3,091,000	60.60

SWEET POTATOES:

1914	--	8,000	125.0	1,000,000	"	.70	700,000	87.50
1924	--	9,000	130.0	1,170,000	"	1.27	1,486,000	165.11
1923	--	9,000	130.0	1,170,000	"	1.15	1,346,000	149.50
1922	--	10,000	153.0	1,530,000	"	.50	765,000	76.50

TOMATOES: (Canning)

1924	--	41,580	3.3	137,200	Tons	19.50	2,675,000	64.34
1923	--	44,230	5.5	243,300	"	15.24	3,708,000	83.84
1922	--	37,170	3.6	133,800	"	14.66	1,962,000	52.78

HAY: (Tame)

1914	--	390,000	1.15	448,000	"	15.30	6,854,000	17.60
1924	--	425,000	1.74	740,000	"	16.40	12,136,000	28.56
1923	--	386,000	1.05	405,000	"	23.60	9,558,000	24.76
1922	--	406,000	1.62	658,000	"	18.50	12,173,000	29.97

TOBACCO:

1914	--	22,000	800.0	17,600,000	Lbs.	.08	1,408,000	64.00
1924	--	28,000	765.0	21,420,000	"	.269	5,762,000	205.78
1923	--	27,000	792.0	21,384,000	"	.281	6,009,000	222.55
1922	--	26,000	770.0	20,020,000	"	.175	3,504,000	134.75

APPLES:

1914	--	-----	-----	3,500,000	Bus.	.41	1,435,000	-----
1924	--	-----	-----	1,749,000	"	.98	1,714,000	-----
1923	--	-----	-----	2,300,000	"	.86	1,978,000	-----
1922	--	-----	-----	1,500,000	"	.90	1,350,000	-----

(Commercial)

1924	--	-----	-----	254,000	Bbls.	3.11	790,000	-----
1923	--	-----	-----	460,000	"	3.00	1,380,000	-----
1922	--	-----	-----	280,000	"	3.00	840,000	-----

PEACHES:

1914	--	-----	-----	1,032,000	Bus.	.98	1,011,000	-----
1924	--	-----	-----	681,000	"	1.36	926,000	-----
1923	--	-----	-----	631,000	"	1.50	946,000	-----
1922	--	-----	-----	495,000	"	1.70	842,000	-----

PEARS:

1914	--	-----	-----	560,000	"	.75	420,000	-----
1924	--	-----	-----	335,000	"	.82	275,000	-----
1923	--	-----	-----	374,000	"	1.00	374,000	-----
1922	--	-----	-----	256,000	"	.50	128,000	-----

GRAPES:

1914	--	-----	-----	-----	-----	-----	-----	-----
1924	--	-----	-----	770	Tons	120.00	92,000	-----
1923	--	-----	-----	880	"	150.00	132,000	-----

ADMINISTRATION

The administration of the Extension Service during the past year has been directed as heretofore with no change in the personnel. Due to lack of funds we have not been able to increase the supervisory force. The Assistant Director, Dr. F. B. Bomberger, notwithstanding his other manifold duties, has ably assisted in the direction of the work of both specialists and agents. Miss Venia M. Kellar, State Home Demonstration Agent, has assisted in a most satisfactory manner in the supervision of the women agents.

The relation of the Extension Service to other divisions of the Institution is cordial and cooperative. Special efforts have been made during the year more thoroughly to coordinate the work of the specialists with the subject matter departments so that in erecting programs of work all forces interested in a particular industry may contribute towards its development. As all the agricultural agencies in this State are under one board with one executive head any possible friction between State agencies is eliminated.

The relations of the Service to the State Department of Public Instruction continue harmonious. In several counties the county superintendents are extending unusual assistance to the agents in carrying forward the county programs of work.

At no previous time has the spirit of cooperation between the Extension Service and the farm organizations been stronger. Agents and specialists of the Service and officers of the local, county and State Farm Bureau and Grange are working hand in hand to discover the needs of their respective counties and communities and to work out the solution for the problems presented. It is fortunate for the State that there have been no disagreeable experiences between the farm organizations, causing embarrassment to all concerned.

Likewise the Service has aided in every possible manner within its limited means county and State fairs. Splendid cooperative relations exist between these organizations and our forces which have enabled the University to make commendable exhibits at many points in the State. It is hoped that we will be provided with adequate funds in the future to meet growing needs and accept the opportunities for making exhibits at our fairs.

Sources of Extension Revenue

During the fiscal year ending June 30, 1924, there were available for Extension Work the following funds: Federal Smith-Lever, \$56,287.11; State Smith-Lever, \$46,287.11; U. S. Department of Agriculture (regular), \$19,200; Supplementary Extension Fund (Federal), \$14,676.40; County Demonstration Fund, \$48,000; State Funds for General Extension, \$15,000; State Horticultural Fund, \$8,000, and \$44,371 contributed by the various counties, or a total of \$251,821.62.

During the present fiscal year ending June 30, 1925, there are available: Federal Smith-Lever, \$56,287.11; State Smith-Lever, \$46,287.11; U. S. Department of Agriculture (regular), \$17,400; Supplementary Extension Fund (Federal), \$14,676.40; County Demonstration Fund, \$49,500; State Funds for General Extension, \$15,000; State Horticultural Fund, \$11,420; Marketing Extension Fund, \$7,500; and about \$49,000 contributed by the various counties, or a total of \$267,070.62.

A detailed statement of the expenditure of the funds available for the fiscal year ending June 30, 1924, is appended to this report.

Changes in Personnel

The following changes in personnel have occurred during the past year: K. A. Clark appointed Assistant Boys' Club Agent March 18, 1924, to succeed P. W. Chichester who was transferred to Frederick County as county agent, Feb. 1, 1924; K. A. Clark resigned as Assistant Boy's Club Agent, effective September 30, 1924; J. M. Hoblitzell resigned as publicity agent, effective March 31, 1924; C. S. Langford resigned as Horticultural Inspector (part time), effective June 30, 1924; A. F. Vierheller appointed Horticulturist October 1, 1924, to succeed S. B. Shaw who was transferred to marketing work October 1, 1924; P. D. Sanders, Horticultural Inspector, (part time), promoted to Assistant Entomologist, effective September 1, 1924; H. A. Hunter appointed Assistant Pathologist October 1, 1924.

O. W. Anderson appointed assistant county agent in Harford county March 19, 1924, to succeed G. R. Stuntz, who was transferred as county agent to Charles County, January 1, 1924; F. L. Bull appointed assistant county agent in Cecil County

March 24, 1924, and resigned May 3, 1924; F. L. Bull appointed assistant county agent in Cecil County July 1, 1924, and resigned September 7, 1924; J. M. Huffington appointed county agent in Anne Arundel County April 19, 1924, to succeed G. W. Norris, who resigned April 15, 1924; S. R. Newell appointed county agent in Calvert County March 3, 1924, to succeed J. H. Drury, who resigned December 31, 1923; E. K. Walrath appointed county agent in Howard County June 16, 1924, to succeed M. H. Fairbank, who resigned June 15, 1924; P. W. Chichester appointed county agent in Frederick County February 1, 1924, to succeed John McGill, who resigned November 30, 1923; G. R. Stuntz appointed county agent in Charles County January 1, 1924, to succeed J. P. Burdette, who resigned December 31, 1923; Wm. M. Garrison appointed assistant county agent in Howard County March 13, 1924—resigned May 31, 1924.

Miss Jessie Campbell was appointed Nutrition Specialist January 1, 1924; Miss E. K. Schurr appointed County home demonstration agent in Harford County December 1, 1923, to succeed Miss A. M. Holbrook, who resigned May 31, 1923; Miss Lola Belle Green appointed county home demonstration agent in Garret County July 1, 1924, to succeed Miss L. I. Henshaw, who resigned October 31, 1921; Miss Margaret Smith appointed county home demonstration agent in Washington County October 4, 1924, to succeed Miss S. S. Garberson, who resigned May 6, 1924; Miss B. M. Spafford appointed county home demonstration agent in Caroline County July 1, 1924, to succeed Miss E. C. Kellog, who resigned April 30, 1924; Miss Bessie M. Volk resigned as county home demonstration agent in Allegany County September 30, 1924; Miss Ellen L. Davis resigned as county home demonstration agent in Prince George's County, effective August 31, 1924.

Equipment

There has been little new equipment purchased during the past year owing to lack of funds. A new stereopticon and moving picture combination apparatus has been secured, also miscellaneous office cabinets, lantern slides and exhibit forms. Many new moving picture machines have been purchased by farm organizations which have been at the service of the agents.

Increasing Efficiency of Workers

One of the problems in the State during the past year has been to caution many of our forces against undue physical strain in their endeavor to meet the requests of farm bureau locals in providing for their meetings. Some agents in counties where there are a large number of locals have been compelled to give up the plan of attending all the monthly night meetings. Certainly the physical well being of an agent is the first essential towards his carrying on successfully work in the county. Fortunately the farmers appreciate this situation and arrangements are being made in several counties to relieve the agents somewhat in attending night meetings at greater or less distance from headquarters.

A joint conference of county agents, men and women specialists and supervisory officers, is held at the beginning of each year for the discussion of problems of administration and programs of work. Regional conferences of agents are held regularly in order that problems common to several adjacent counties may be jointly studied. Monthly conferences of specialists and administrative officers are held at headquarters.

It is an accepted principle in this State that the specialists and agents correlate all phases of their work so that they will appear more and more to be part and parcel of a county program and mutually interested in the keeping of clear and complete records of Extension work accomplished.

The system of keeping records and financial accounts under the supervision of Miss K. G. Connolly, Administrative Assistant and Chief Clerk, is most satisfactory. The office organization is efficient but lack of funds has made the task of supplying adequate stenographic and clerical assistance for the specialists a most difficult one. During the year a total of 33,974 first class letters have been mailed from this office, while all pieces of mail sent from the headquarters office numbered about 90,334. A grand total of 98,171 first class letters were sent out by all Extension forces, including those sent from the county agents' and home demonstration agents' offices.

It is pleasing to acknowledge my gratitude to all the members of the Service for their cordial support and loyal cooperation in directing the work of the organization.

PUBLICATIONS

The following publications have been issued by the Service during the past year: Bulletin 29, "Standards for Seed and Show Corn," 7 pages, 5,000 copies; Bulletin 30, "The Marketing of Wheat in Maryland," 46 pages, 5,000 copies; Bulletin 31, "More Tomatoes from Fewer Acres," 14 pages, 3,000 copies; Bulletin 32, "Maryland Farm Statistics," 41 pages, 3,000 copies; Bulletin 33, "Cutting Production Costs With Farm Machinery," 13 pages, 2,000 copies; Bulletin 25 (reprinted), "The Brood Sow and Her Litter," 15 pages, 2,000 copies; Bulletin 34, "More Vegetables from the Home Garden," 74 pages, 3,000 copies; Circular 55, "Certification of Seed Potatoes," 8 pages, 1,000 copies; Information Card Number 8, "The Japanese Beetle," 3 pages, 10,000 copies; Information Card Number 9, "Spray Chart," 3 pages, 2,000 copies; Information Card Number 7 (revised), "Insuring the Tobacco Crop Against Wild-fire," 1 page, 3,000 copies; "Ninth Annual Report," 65 pages, 2,500 copies.

In addition the Extension Service News, a monthly publication, has been issued regularly. During the year 39,600 copies, with 158,400 pages, have been published.

Mr. M. D. Bowers, Specialist in Agricultural Journalism, edits the publications and has ably assisted in many administrative details with reference to publicity, information statements, addresses, etc. He has furnished the daily, weekly and agricultural press with a large number of articles bearing on the accomplishments of the Service and assisted in devising plans for several exhibits.

He reports a generous attitude on the part of the State press in giving prominence to news pertaining to agricultural subjects. He has made every effort to supply the newspapers of the State with the kind of material which they can use. Farm papers circulating within the State have been especially helpful in their cooperation with the Extension Service and have done much to further the program for the improvement of agriculture.

Photographs

The specialist reports that in cooperation with Mr. Reuben Brigham, of the Extension Office, U. S. Department of Agriculture, it has been possible to develop during the past year an

important and valuable project that promises fine results in securing more and better photographs. Last June the project was tried in Kent and Harford Counties. Demonstration farms were visited and photographs of actual demonstration work of a varied character were secured. This plan will be followed in other counties this year and by this means a special collection of photographs secured.

The revision of the mailing list last year has greatly facilitated the issuing of publications.

County Agents' Notes

Accomplishments by county agents as recorded from month to month in their narrative reports have been compiled as news items during the year and have been made the basis for regular contributions appearing in the Maryland Farmer and the Southern Planter. These items have appeared in the two publications mentioned twice each month, thereby giving the county agents recognition for their achievements. A similar department has been carried each month in the Extension Service News.

PROJECTS

The work of the Service is conducted under definite projects which are approved by the Extension Service, U. S. Department of Agriculture. It is only possible in a report of this character to give in summarized style the work of the agents and specialists in their respective fields. All agents and specialists submit annual reports of their work, copies of which are forwarded to the U. S. Department of Agriculture.

COUNTY DEMONSTRATION WORK

County agricultural agents are employed in all the twenty-three counties of the State. In addition there are three assistant county agents and two local (colored) agents. Each of the latter works not in a single county, but through a group of counties in which the colored farm population is large.

Each agent follows a definite program of work and submits monthly and annual reports on the progress of his program.

The Director and Assistant Director have visited the agents at the rate of 8.4 visits per county for purposes of advice and assistance in carrying on their work.

The County Extension Service has become recognized as a definite part of the official county administration. It requires no apology for its existence. It has demonstrated that it is a part of the public service machinery which must function, and function well, if the best interests of rural communities are to be conserved. We believe this State is to be congratulated upon the high character and efficiency of the Extension agents who represent this Service and Institution in the several counties of the State. They are faithful public servants who are doing a good work very earnestly and very efficiently.

The Extension Service is indebted to the County Boards of Commissioners in the several counties for their cordial support and active cooperation in financing the county budgets. One unique feature of the method of financing county agent work and county home demonstration work in Maryland is that all agents are paid definite salaries, with additional allowance for travel expenses; and that their salaries and expenses are provided from public funds appropriated by the Federal, State and County Governments.

The following agents are employed in the respective counties at this date.

<i>County</i>	<i>Name</i>	<i>Headquarters</i>
Allegany	R. F. McHenry	Cumberland
Anne Arundel	J. M. Huffington	Annapolis
Baltimore	W. C. Rohde	Towson
Calvert	S. R. Newell	Prince Frederick
Caroline	L. M. Goodwin	Denton
Carroll	F. W. Fuller	Westminister
Cecil	A. D. Radebaugh	Elkton
Charles	G. R. Stuntz	La Plata
Dorchester	E. W. Montell	Cambridge
Frederick	P. W. Chichester	Frederick
Garrett	W. C. Jester	Oakland
Harford	B. B. Derrick	Bel Air
Howard	E. K. Walrath	Ellicott City
Kent	H. B. Derrick	Chestertown
Montgomery	W. C. Snarr	Rockville
Prince George's	W. B. Posey	Upper Marlboro
Queen Anne's	E. W. Grubb	Centerville
St. Mary's	G. F. Wathen	Loveville
Somerset	C. Z. Keller	Princess Anne
Talbot	E. P. Walls	Easton
Washington	M. D. Moore	Hagerstown
Wicomico	G. R. Cobb	Salisbury
Worcester	E. I. Oswald	Snow Hill

Ass't County Agents

Harford	O. W. Anderson	Bel Air
Montgomery	P. C. Cissel	Rockville
Cecil	T. H. Bartilson	Elkton

Local Agents

J. F. Armstrong (Col.)	Southern Maryland	Seat Pleasant
L. H. Martin (Col.)	Eastern Shore	Princess Anne

Below is given a brief summary of the Agents' work:

Number of farm visits made in conducting Extension Work	15,254
Number of calls on agents for assistance	65,619
Number of individual letters written	47,651
Number of demonstration meetings held	5,340
Number of people who attended demonstration meetings	47,763
Number of other cooperative educational meetings held	2,000
Number in attendance at these meetings	132,875
Number of demonstrations conducted	6,236
Number of acres involved in farm crop demonstrations	37,519
Number of animals involved in livestock demonstrations	114,099
Number of different farms adopting improved practices	32,425

Negro Work

Limited funds have prevented the extension of the negro work in the State. The two agents, one on the Eastern Shore and one in Southern Maryland, have submitted excellent reports showing that they are serving their people and greatly assisting the negro farmers with their problems. The development of colored boys' club activities on the Eastern Shore is



NEGRO CLUB WORK

making a marked impression among the younger generation. Mr. L. H. Martin and Mr. J. F. Armstrong are engaged as agents in this work.

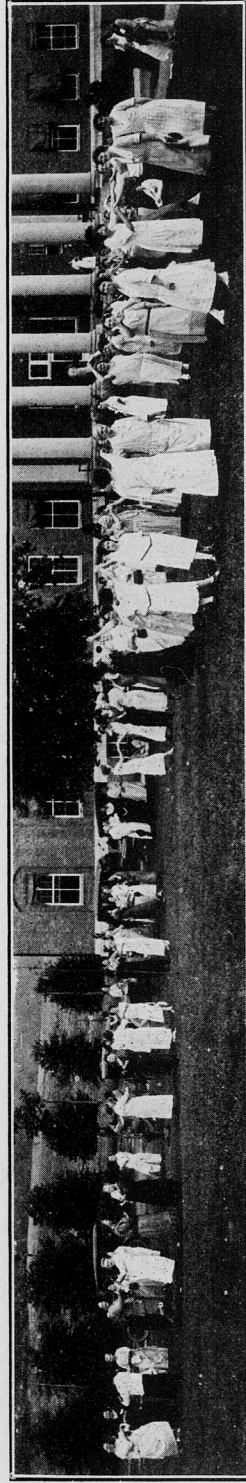
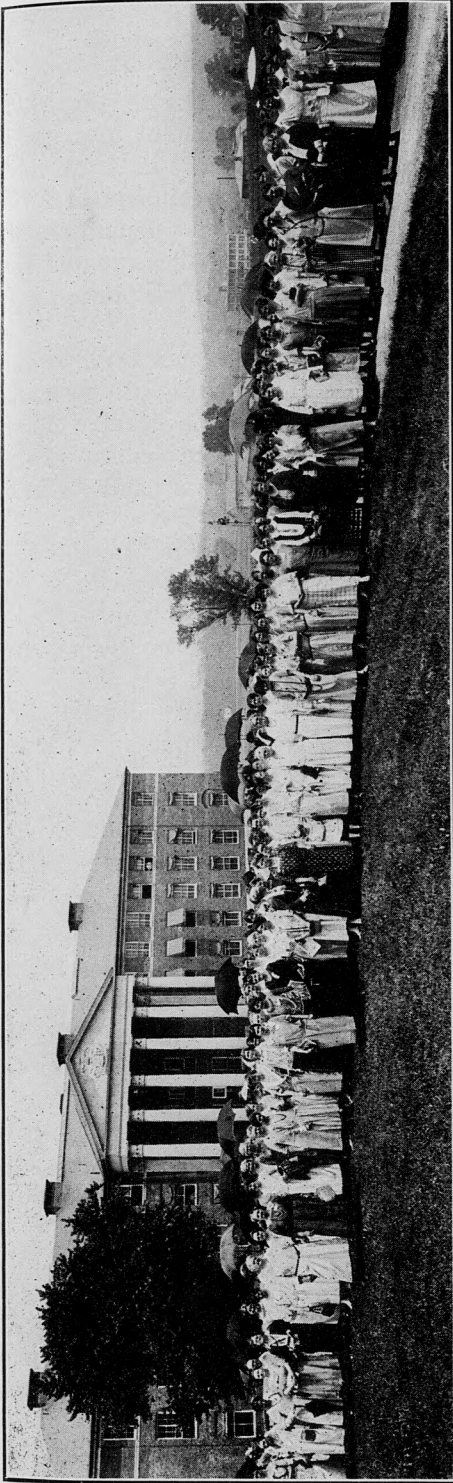
HOME DEMONSTRATION WORK

Concerning itself with the problems of the rural home and community, the Home Demonstration work during the past year has shown splendid progress. Its influence has spread to more homes and into new communities and the work in Garrett county has been resumed after a period of several years. Home demonstration agents are now serving in nineteen counties of the State.

As reported by Miss Venia M. Kellar, State Home Demonstration Agent, the work in the interest of the rural home and rural community has been continued along much the same lines as in former years. There has been, however, a significant development in organization among rural women and girls as the result of the efforts along this line during the past few years. Naturally the perfecting of organization plans has had a stimulating effect on the home demonstration work during the year. It has provided a better medium for the prosecution of the work and has made it possible to reach very much larger numbers of rural women and girls while at the same time offering opportunities for a more effective presentation of the various projects that have been undertaken.

At the same time better organization among rural women and girls has developed a keener sense of community responsibility and has greatly strengthened women's influence in community activities. The result has been the accomplishment of many worth while community endeavors that previously would have been impossible.

Some idea of the development that has taken place in the organization of rural women and girls may be obtained from a comparison of figures in recent years. At the close of 1922 there were 110 rural women's clubs with a total enrollment of 3,504 members. The following year the number of clubs had increased to 149 and the enrollment to 4,592. At the end of the past year there were 243 rural women's clubs throughout the State with a total enrollment of 6,030.



RURAL WOMEN'S SHORT COURSE AT UNIVERSITY OF MARYLAND, JUNE, 1924

The increase in the number of girls' clubs in the State, though not quite so marked, has been consistent and speaks well for this most promising field of effort. In 1922 there were in the State 206 girls' clubs with an enrollment of 2,710. In 1923, due largely to changes in the home demonstration staff, the number of clubs dropped to 193 with a membership of 2,612. The close of last year showed 233 girls' clubs in the State with an aggregate membership of 3,124.

In both women and girls' work, the aim has been to consolidate local clubs into county federations as rapidly as conditions would permit. At the present time the rural women's clubs in ten counties of the State have been federated into county units while similar federations of girls' clubs exist in four counties of the State.

One of the vital problems of the rural home in Maryland, as elsewhere, is the necessity of meeting all the needs of the family out of the limited income available for this purpose. During the past few years this problem has been accentuated by the depressed condition of farm prices and economy in the handling of the home budget has been more than ever necessary.

Much of the home demonstration work conducted in Maryland has had a direct bearing on this problem. The food and nutrition program, while primarily designed to promote healthful living through recently acquired knowledge on this subject, has likewise laid stress on the proper use of home grown fresh and canned products and their economical use in the diet. The work in clothing and millinery has naturally emphasized the importance of good personal appearance and has succeeded in demonstrating to hundreds of rural women and girls that this can be accomplished by very modest expenditures from the family funds. In household management and home furnishing, the program of work has been devoted to the introduction of practical ideas that have aided greatly in bringing about needed home improvements at little or no expense. Gardening, poultry work and income earning features, which have rounded out the work of the past year, have all had valuable results in helping solve the problem of economical family maintenance.

The work during the past year has largely been centered around the long-time program of work and the majority of women's and girls' clubs have adopted some part of this program in preference to a miscellaneous one. By this means,

the work on the various projects undertaken becomes a continuous program which grows in value with each succeeding year.

Rural Women's Short Course

The rural women's short course, instituted in 1923, was repeated last year and 301 women from twenty-one counties of the State were in attendance at the University of Maryland from June 16 to 20. The short course has done much to stimulate home demonstration work in the counties and has proved of great value in the development of local and community leaders.

Owing to the fact that numerous women who attended the course the preceding year enrolled again last year, it was necessary to provide instruction for two distinct groups. It is planned to develop a four-year course of instruction so that interested women may continue to take advantage of instruction in the subjects which they prefer. Last year instruction was offered in the following subjects: Clothing, foods, household management, canning, house furnishing, health, home dairying, millinery, poultry and parliamentary law.

As a result of the short course and the development of organization among rural women and girls, the number of local leaders who are assisting in making home demonstration work effective in the State has increased greatly. There were during the past year 994 local leaders assisting the home demonstration agents in prosecuting home demonstration work in the State. To these faithful leaders and to the various organizations of the State, including the Grange and the Farm Bureaus, must be given much of the credit for the splendid progress made. In addition, the home demonstration work has frequently been in cooperation with county boards of education, county health associations, county welfare associations, the State Federation of Women's Clubs and other State and county organizations to promote community needs through better schools, improved sanitary measures, health programs, recreation, roads, State, county and community fairs and exhibits, community picnics, organization meetings, etc.

Household Management

While there has been no specialist to direct the program of work in household management during the past year, the

project has been successfully carried on by the home demonstration agents and the 165 local leaders devoting their time to this particular phase of home demonstration work.

The work has largely centered around the organization of household work, which has had as its object the improvement of the home and economical use of time, and the economical administration of the income. Demonstrations were given in such subjects as the proper arrangement of household equipment, ventilation and lighting, renewing and caring for floors, and cleaning and re-finishing of furniture. Help was given, wherever possible, in the proper installation of water, heating and lighting systems.

In addition to the demonstrations designed to promote the work in household management, many worth while exhibits of labor saving equipment were shown at county fairs during the year. Instruction in re-finishing furniture and hints on attractive decorations for the home were followed by many rural women and girls who found them practical and most valuable.

Clothing and Millinery

Clothing and millinery are naturally important projects to the rural women and girls of the State. The home demonstration work in this connection is particularly valuable to the rural home maker confronted with the troublesome task of clothing the family on a usually limited income. Furthermore, styles and new ideas in clothing and millinery must be of a practical character to suit conditions of rural living.

According to Miss Bertha M. Knight, district agent and specialist in clothing, the work mapped out for the past year has been first of all practical. Among other things it has included the necessary instruction regarding the kind of clothing to be chosen from the standpoint of health. The selection of clothing with due regard to durability, appropriateness, color, texture and cost has likewise been an important feature of the work. Care of clothing, including such subjects as storage, removal of stains, laundering, dry cleaning and dyeing, has been of much value. The construction of clothing, however, has probably brought the best results to the rural women of the State. In this connection the making of dress forms, the construction of suitable house aprons and



CLOTHING EXHIBIT

house dresses have been stressed and the construction of children's clothes has been a valuable and important feature. Savings to rural women as a result of the clothing project alone are estimated at more than \$41,000 the past year.

Nutrition

The work in nutrition, as reported by Miss Jessie Campbell, district agent and specialist in nutrition, had for its objects during the past year the dissemination of information regarding the definite relation between diet and health of mind and body; a more intelligent appreciation and a wider use of the hot school lunch; and an increase in the use of fruits, vegetables and dairy products in rural homes.

The project has been presented in numerous ways. The nutrition program has been embodied as a part of the program of many rural women's clubs. The school lunch problem has been approached through women's clubs and teachers in the schools. The more extensive use of fruits and vegetables has been emphasized by local leaders before their clubs and by

special talks and lectures at meetings, while the problem of under-nourished children has been approached by direct contact with the mothers and with the assistance of the local health officer and nurse.

The results have been most encouraging. There is a growing disposition on the part of rural women to give more attention to foods and to properly balanced meals. Milk has been introduced into a number of schools where it was not served before and supervised lunches have become more common. A better diversity of canned products has been brought about in many cases and there has been progress in securing cooperation on the part of mothers whose children show signs of under-nourishment. The work has been carried on with the assistance of sixty-three local leaders.

Girls' Club Work

The girls' club work during the year has followed a program in accord with that outlined for the rural women. According to Miss Dorothy Emerson, girls' club agent, the long-time program has been followed with excellent results, thus assuring the club members of systematic training for a period of years.

Clothing, canning, bread making, poultry raising, home decoration, food selection and preparation have been the principal subjects included in the programs in the several counties. In addition club work has afforded a splendid opportunity for girls to gain experience in conducting and taking part in public meetings.

There were during the past year 233 girls' clubs in the State with a total enrollment of 3,124. One hundred and thirty-nine local leaders devoted their time to helping promote the work.

As a result of their club work, several girls have succeeded in developing small enterprises to earn money which they intend to devote to completing their education. Approximately \$2,240 was earned during the year by girls in various club projects.

An important feature of the work during the year has been the training of demonstration teams, which have held a prominent part in local, State and national fairs. Four girls were

selected to represent the State at Camp Vail, Eastern States Exposition, Springfield, Mass., and gave demonstrations in muffin baking, plain and fancy dyeing and suitable clothing for a club girl. The demonstrations were viewed by thousands of people and were well received and highly complimented. Club Week at the University of Maryland proved a splendid training for the girls who were chosen to attend, while camps held in three counties during the year, afforded girls' club members opportunities for recreation and intensive instruction. The camps were fine incentives and have been most valuable in the development of leaders.



DEMONSTRATION IN THE PREPARATION OF FOODS

Home Demonstration Agents

Following is a list of home demonstration agents at present employed by the Extension Service:

<i>County</i>	<i>Agent</i>	<i>Headquarters</i>
Allegany -----	-----	-----Cumberland
Anne Arundel -----	Mrs. G. Linthicum -----	-----Annapolis
Baltimore -----	Mary Graham -----	-----Towson
Calvert -----	-----	-----Prince Frederick
Caroline -----	Bessie Spafford -----	-----Denton
Carroll -----	Isabelle Cobb -----	-----Westminster
Cecil -----	Lillian Grimm -----	-----Elkton
Charles -----	Mrs. Elva Bohannon -----	-----La Plata

Dorchester	Sara Coyne	Cambridge
Frederick	Elizabeth Thompson	Frederick
Harford	Eva K. Schurr	Bel Air
Garrett	Lola B. Green	Oakland
Kent	Susan V. Hill	Chestertown
Montgomery	Blanche Corwin	Rockville
Prince George's		Hyattsville
Queen Anne's		Centerville
St. Mary's	Ethel Joy	Leonardtwn
Somerset		Princess Anne
Talbot	Mrs. Olive Walls	Easton
Washington	Margaret Smith	Hagerstown
Wicomico	Florence Mason	Salisbury
Worcester	Lucy Walter	Snow Hill

Local Agent

Charles and St. Mary's	Leah W. Hopewell	La Plata
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Following is a summary of home demonstration work for the year, reported by Miss Kellar and her assistants:

Number of home visits made in conducting Extension Work	4,755
Number of calls on agents for assistance	12,591
Number of individual letters written	13,471
Number of demonstration meetings held	4,077
Number of people who attended demonstration meetings	45,035
Number of other cooperative educational meetings held	1,397
Number in attendance at these meetings	57,477
Number of demonstrations conducted	5,642
Number of quarts of fruits and vegetables canned in demonstrations by women and girls	148,968
Number of quarts of meats and fish canned in demonstrations by women and girls	30,751
Number of quarts of jelly and preserves made in demonstrations by women and girls	28,556
Number of quarts of fruit juices made in demonstrations by women and girls	2,921
Number of quarts of pickles made in demonstrations by women and girls	24,687
Number of pounds of fruits and vegetables dried in demonstrations by women and girls	1,647
Number of pounds of meat cured in demonstrations by women and girls	35,972
Number of dress forms made in demonstrations by women and girls	831
Number of dresses and coats made in demonstrations by women and girls	6,743
Number of undergarments made in demonstrations by women and girls	9,263
Number of hats made in demonstrations by women and girls	5,270
Number of different homes adopting improved practices	12,094

BOYS' CLUB WORK

The Boys' Club Work according to the boys' club agent, Mr. E. G. Jenkins, has made commendable progress during 1924. No changes in the plan of organization were made this year

and several additional counties were induced to adopt and emphasize improved methods in boys' club organization, placing the work on a community Extension demonstration basis.

The outstanding accomplishment during the past year was to have all the Extension forces and cooperating farm organizations to think of club work in terms of reenforcing the general Extension programs for a county. It is thus desirable to lead the club members towards conducting worth while demonstrations which will quickly enlist the interest of community organizations.

The most effective projects being promoted in Maryland which attracted the interest of boys and which lent themselves to the newer methods were dairy cattle, swine and poultry improvement projects. Quite naturally club work has grown along these three lines and in more than half the counties livestock clubs are functioning on a community Extension basis and to a growing extent their better practices are being adopted on more farms and in the neighborhood.

Confidence is strengthened by this year's results in the belief that leadership of clubs will increase as older club boys mature and take their places in their communities. The inspirational activities promoted with this in mind, designed and projected with the object of helping other club members find themselves, have been successful.

Some Accomplishments of Club Work

There was an increase in enrollment during the past year and also a substantial increase in the number completing demonstrations. The total estimated value of club products in



BOYS' CLUB CALVES ON PARADE

HOW HARFORD COUNTY CLUB MEMBERS LEARN

THE BOYS AND GIRLS OF HARFORD COUNTY ARE LEARNING ABOUT CATTLE.

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1924 is \$179,304.36, which is an increase of \$81,733.35 over the value of 1923. The value per club member for 1924 was \$151.69 or \$42.06 more than in 1923.

Club Week: Two hundred and seventy-five members selected as leaders in their work from all the counties attended Club Week at the University beginning August 7th. Demonstrations in various lines of work were conducted by specialists and leaders and various other activities such as games, camp-fires and vesper services were conducted by older club members and were most inspiring and helpful. The usual "Bankers' Trip" to Washington was given. Club week serves a most useful purpose in developing junior leadership.

Timonium Fair: The usual judging contests were conducted by club members from all parts of the State at the Timonium Fair. The quality of dairy animals, swine and poultry shown by club members caused much favorable comment. Kent County boys, under the supervision of County Agent H. B. Derrick, won the team contest at Timonium.

Camp Vail: Katherine Baker and Fred Bull were club representatives of Maryland to the two weeks' training school for leaders at Springfield, with expenses paid by Mr. Horace A. Moses of Russell, Massachusetts. With funds furnished by the Exposition and the State Bankers' Association five boys and five girls attended Camp Vail.

National Dairy Show: County Agent H. B. Derrick, having had the winning team at the Timonium Fair, became the coach of the State club dairy team to compete in the National contest. This team took fourth place in the keenest contest that has been held at the National Show.

Baltimore and Ohio Club Work: Commendable progress has been made in ten counties in the development of poultry work in cooperation with the agricultural agents of the Baltimore and Ohio Railroad.

Mr. P. W. Chichester, who served as assistant club agent for several years, resigned last January to take up County Agent Work in Frederick county. Mr. K. A. Clark served as a part-time assistant until November 1st. Mr. Clark did fine work and it is regretted that his work at the Institution prevented his continuing in club work.

AGRONOMY

One of the gratifying pieces of work conducted under this project by the specialist, Mr. F. W. Oldenburg, in cooperation with the dairy specialist was to inaugurate an intensive campaign among the dairymen of the State for the encouragement of growing legumes and other feed both for maintenance and milk production. The subjects of proper rations, the value and economy of the home-grown crops and their importance in furnishing protein to the ration and in lowering cost of milk production were given at a large number of meetings or schools. In all a total of 89 meetings were held in dairy sections last winter. In addition a total of 22 other meetings were held during the year at which legumes were the principal topic of discussion.

Splendid progress has marked the effort of the Service to encourage the growing of soybeans. A total of about 35,750 acres was devoted to this one legume the past year when ten years ago very few acres were grown in the State. Moreover nearly the total acreage in the State is devoted to two varieties which is a big advantage. The Experiment Station has furnished inoculating material on the basis of cost provided the demonstrator will give a report on yield in comparison with uninoculated seed.

Corn

Corn is Maryland's most valuable crop. With more than 625,000 acres in this crop it does not need a large increase in yield per acre to bring about a considerable increase in the income of Maryland farmers. The work of increasing the yield per acre and improving the quality of corn in Maryland was stressed in demonstration work to include cultural methods, fertilizers, introducing and spreading purebred varieties, seed corn and show corn selection, seed selection with special reference to root rot, seed corn testing, five-acre contests, club work.

In conducting this work the specialists and agents are selecting corn growers who will practice the proper methods to bring about a gradual improvement in the variety that is adaptable to the particular section of the State. Due to the poor growing season the results of demonstration work with corn are not so favorable as heretofore.

The development of this work is shown in prizes Maryland growers have won at the International Grain and Hay Show. We have won more prizes both in 1923 and 1924 in our region than any other State except Indiana. The specialist has co-operated with the pathologist in conducting a large number of tests involving seed selection with respect to indication of root rot and in most cases a gain in yield has been secured.



SELECTING SEED CORN

Sugar Corn

Sugar corn is likewise a very important crop in the State both for table purposes and canning. More than $2\frac{1}{4}$ million cases of corn are canned yearly in the State. Most of the canners realize the importance of good seed and a number of them are producing their own seed and are practicing careful selection. A start was made during the past year towards developing more uniform seed, and in cooperation with the Experiment Station it is hoped that a substantial progress can be made in improving this industry.

A splendid exhibit illustrating the work of Dr. Appleman of the Experiment Station Staff in sugar corn investigations was

installed at the International Grain and Hay Show by all the agronomists in cooperation with the Southern Maryland Immigration Commission.

Wheat

Nearly 600,000 acres are devoted to winter wheat in Maryland. Special efforts have been made to induce the growers to adopt those varieties that have proven through experimental tests over a series of years to make the best yields for the respective sections of the State.

A survey conducted during the past year by the Agronomy Department showed splendid progress in the adaptation of the bearded and smooth wheats in relation to elevation that will greatly aid in definitely fixing the strains or varieties of wheat that should be grown for greater returns.

Due to the studies of Prof. W. B. Kemp the Experiment Station finds that Fulcaster wheats will out-yield the smooth wheats in the tidewater regions and other regions of lower altitude, including the valley of Frederick, Washington and Allegany Counties, while the smooth wheats will have a greater average yield on the higher altitudes, including the Piedmont region. Based on these results the specialists and agents have demonstrations in progress looking to the improvement of strains and the development of certified grain.

The specialist reports doing considerable work with oats and other small grains, such as barley and rye. He has also judged at many fairs and conducted a large number of method demonstrations in seed selection and given advice on agronomy problems.

ANIMAL HUSBANDRY

Mr. B. E. Carmichael, specialist in animal husbandry, reports that the chief problems in Maryland's livestock industry have to do with the better breeding, management and feeding of livestock to the end that a more efficient animal production may prevail. Interest in horses has been at a low ebb, due to market conditions; winter feeding of beef cattle has been much reduced by reason of the shortage of hay; interest in hogs, even on the part of boys' club members, has been lowered in some parts of the State because hogs were low in price as compared with the price of corn; interest in sheep husbandry has been good, for lamb and wool prices have been much above normal.

Accordingly, the best field for special effort has been with sheepmen and some very good progress has been made in interesting sheepmen in better breeding stock.

Improvement in Sheep

In 1924 a definite attempt was made to increase the number of flocks of purebred sheep in the State. For years there has been a dearth of purebred rams for use on Maryland farms. An idea of the need for more purebred sheep may be gained from the 1920 census, which reported only 1093 purebred sheep in Maryland and 127 farms as having purebred sheep. This would leave 4612 of the 4739 farms that reported sheep without purebred sheep of either sex and would indicate an immediate need for at least 4612 purebred rams in the State.

One hundred head of purebreds (Hampshire), eighty ewe lambs, fifteen bred yearling ewes and five bred two-year old ewes, were selected in Idaho by the specialist after orders had been pooled from a number of different sheep growers in the State. These purebreds were distributed in six counties as follows: Prince George's, Frederick, Baltimore, Anne Arundel, Caroline and St. Mary's. Assistance was given in locating sheep for establishing two additional flocks on the Eastern Shore, one in Washington County and two others in Southern Maryland.

Miscellaneous Work

A considerable amount of the specialist's time has been devoted to judging livestock at various county and local exhibitions. The work is not always staged as definite judging demonstrations, but often the placings are discussed and reasons given for them. The effect of this work is noticeable in the case of exhibitors, who are bringing better stock for show purposes than in former years. Good interest has been shown by a number of fair officials in the suggestion that arrangements be made through cooperation with a number of associations and the Extension Service for staging a number of horse-pulling contests during 1925.

The specialist, as Secretary of the Swine Growers' Association, assisted in developing interest in the swine industry. The report of the first meeting of the Association was published during the year.

The second annual conference of Breeders and Feeders of Beef Cattle was held in Baltimore in January. Mr. Carmichael also serves as secretary of this group.

At the request of the director, Mr. Carmichael again had charge of the University fair exhibit, as staged at Timonium and at Indian Head. The exhibit at Timonium occupied practically a whole building. With the cooperation of the Office of Exhibits, U. S. Department of Agriculture, a splendid educational exhibit was staged and viewed by thousands of farmers.

Two splendid bulletins entitled "Lambs and Wool for Market" and "Winter Fattening of Steers" were written and issued by the specialist during the year.

Hog Cholera

Dr. I. K. Atherton, Inspector in Charge of Hog Cholera Work, reports the first nine months of 1924 as showing a marked increase in hog cholera in Maryland as contrasted with any like period for the past several years. He attributes this to conditions existing in the Middle West and the subsequent



A DEMONSTRATION IN HOG PASTURE

careless use of garbage. During the fall there was a decrease by 50% under the preceding year. During the year outbreaks of hog cholera were reported on 560 premises and there is good reason to believe that this is more than 90% of all that occurred in the State. Of this number 429 were primary or new outbreaks, and 131 were secondary, or cases caused by the spread of the disease from nearby centers of infection. In this work our Extension forces have cooperated with the regional inspectors in preventing as far as possible the development and spread of the disease.

DAIRY HUSBANDRY

Substantial progress has been made in dairy extension work during the past year. Mr. J. A. Conover, specialist, reports great impetus in boys' club work. At present there are 260 boys in fifteen counties belonging to calf clubs with a total of 383 calves. Harford County has the greatest number of calf club members. There are four colored boys engaged in calf club work with a total of seven calves. The specialist has aided the agents in demonstrations, meetings and shows for promoting club work.

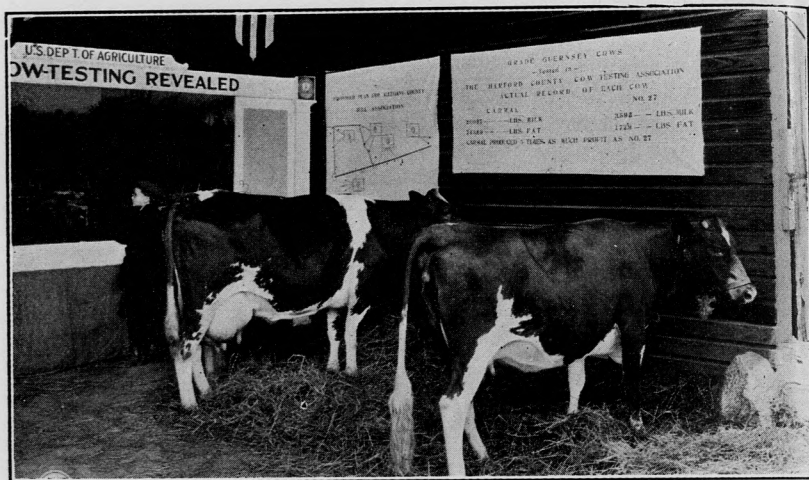
Cow Testing Associations

The cow testing association work has made a decided advance this year. Not only have we gained in numbers, but every association is in charge of a good tester, and all of the associations are in a thriving condition. A total of eleven associations are being conducted in seven counties of the State. In Baltimore County a new method of conducting an association is being tried out which promises to be successful. This work stimulates a desire for better cows and will be the means of introducing purebred bulls. Through the specialist's individual efforts 209 purebred bulls have been introduced.

Better Feeding Campaign

In cooperation with the specialist in agronomy, Mr. Conover assisted in the special drive on growing legumes and feeding dairy cows. The subject of proper rations was thoroughly explained showing especially the value and economy of the

legume crops and the importance of proper care and management of the herd as factors in the program for more economical production of milk.



COW TESTING FOUND THE COW ON THE LEFT FIVE TIMES MORE PROFITABLE THAN THE OTHER

Improvement of Baltimore Milk Supply

At the request of the City Health Department the Extension Service called a conference last February of all agencies interested in improving the milk supply of Baltimore. After several conferences a program for improvement was developed and means taken to carry out the work in five counties. Meetings were held explaining the purpose of the project, viz., reducing the bacterial count of milk coming to Baltimore and a consequent reduction in loss to the producers in the return of unacceptable milk by the Health Department.

In addition to the meetings of dairymen that were held, county agents and the specialists visited a large number of farms to explain how conditions could be improved so as to meet the requirements of the health authorities.

Truck drivers, railroads and dealers all joined in this project. All the agencies working together reduced the bacteria count of the raw milk to about half what it was during the previous

spring. During the height of summer some trouble developed but this was overcome by stern action on the part of city authorities. The project as a whole did much to assist the dairymen of the territory with production of first-class milk.

During the past fall a special committee, with Prof. J. A. Gamble as chairman, has developed an entirely new system of milk grading and a complete reorganization of the control work will be effected.

It is felt that this work on the part of all forces will be of lasting benefit to the dairymen and the market which they supply.

Miscellaneous

Mr. Conover reports gradual development in creamery and cheese work. The creamery in Charles County is now in a most satisfactory condition for serving the industry in that section.

Much advice has been given in dairy barn construction work. He reports dairy work is attracting more attention in our southern counties than ever before. This is evidenced by improvement of the stock, building and remodeling of barns, organization of dairymen's associations and herd testing, both for tuberculosis and butterfat.

Prof. J. A. Gamble, part-time dairy extension specialist, reports devoting much time to the work of the State Dairymen's Association, the Dairy Council and milk improvement matters. The neutral testing laboratory has during the last five years tested 320,000 milk and cream samples. This neutral testing service continues to be a source of pride to both the producers and the dealers in that market and has resulted in marked information not otherwise obtainable.

Advanced Registry Service

The advanced registry service carried on with breeders of purebred dairy cattle under Prof. Gamble's direction continues to expand its sphere of usefulness. Many high producing individuals in the different herds have been discovered and much publicity of value to the industry has been obtained. A summary of the year's work shows that 2,709 tests were made of the individual cows. A survey of the year's work shows that there were 1,218 tests made on Holsteins, 1,133 on Guernseys, 324 on Jerseys, and 35 on Ayrshires.

POULTRY HUSBANDRY

It is estimated that there has been at least a forty per cent increase in the poultry industry of the State during the past three years. This increase in production, resulting in somewhat lower prices for poultry products, together with higher feed prices, further increases the necessity of careful and efficient management among our farmers and poultrymen so as to eliminate as many leaks and as much waste as possible.

The specialist, Mr. W. H. Rice, reports that the demand for culling demonstrations continues in all parts of the State. The problems of cooperatively marketing eggs and poultry are demanding the attention of all forces.

The specialist reports that beyond question, the lack of high type of standard-bred poultry, together with haphazard methods of management, due to a lack of appreciation of the importance of the poultry flock and the part it is capable of playing—and does in a great many instances play—in the farm income, are the factors limiting the returns from the average Maryland poultry flock.

To this end, the recommendation of the adoption of standard-bred poultry on every farm, and the administering of scientific management consistent with economical returns with reference to the production of a standardized product through all agencies and organizations, has been the aim of the poultry specialist. Special attention has been given to the activities of the 4-H poultry clubs.

Mr. Rice has conducted a total of 106 adult and 81 junior result demonstrations and 76 method and 19 caponizing demonstrations. He addressed 88 meetings with an attendance of 4,396. To these may be added 159 culling demonstrations conducted by the county agents and 141 by others on the advice of the specialist.

Standardization of Products

Work in standardization of products with reference to better market returns has been largely in the nature of demonstrations and exhibits in the candling, grading and packing of eggs, in killing, dressing, grading and packing of market poultry, and recommendations in regard to general management of flocks for economical production and market demands.

Preparing Poultry for Market

Demonstration work in the preparation of poultry for market and the grading and packing of same has developed during the past year. Largely through the efforts of local farm organizations, demonstrations have been held in the sticking and dressing of market poultry, as well as demonstrations in the grading and packing of same, with the object of commanding highest market returns.

In Dorchester County alone the Farm Bureau pooled 540 turkeys with a total of 4,500 pounds.

4-H B. & O. Poultry Club Work

The specialist reports cooperating with the railroad officials in the conduct of club work in eleven counties of the State. The outstanding club in this work is the Colesville Club of Montgomery County. Edith Hobbs of this club was the winner of the sweepstakes prize in the 1923 State exhibit. This club is responsible for the adoption of pure bred poultry by many farms in the Colesville community and members of this club have more orders for stock and eggs than they are able to supply.

The 4-H poultry club work is advancing in a most commendable manner.

Prof. Roy H. Waite, head of the Poultry Department, has assisted in poultry Extension work as far as possible.

The growing demands for this work and the active cooperation of poultry agencies in the State augur well for the future development of the industry of the State.

HORTICULTURE

A slight decrease in the commercial apple crop and a considerable increase in the peach crop were the outstanding factors of the past year's fruit season in Maryland. The crop as a whole was very much scattered both with respect to varieties and location. In some orchards there were normal crops of such varieties as Stayman, York Imperial and Transparent apples and Elberta peaches, while in other orchards in the same localities these standard commercial varieties were comparatively light.

The total commercial crop of apples in 1924 was approximately 1,749,000 bushels as compared with a crop of 2,300,000 bushels the previous year. Commercial production of peaches totaled 681,000 bushels in contrast with a 631,000 bushel crop in 1923. Better prices for both apples and peaches prevailed and this was particularly true of fruit from orchards where good growing methods had been practiced and necessary thinning had received attention.

Marketing Problems

Keen competition from outside sources continued to be felt in Maryland and the markets again emphasized the necessity for high grade fruit and careful grading and packing. While these production and marketing problems continued, the labor situation was not quite so difficult as in 1923. This was noted, however, more in a larger available supply of labor during the rush seasons than in any reduction in prevailing wages.

The work in horticulture during the past year was conducted by Mr. S. B. Shaw, specialist in horticulture, until October 1, when he was transferred to the position of specialist and chief inspector in marketing. On October 1, Mr. A. F. Vierheller took up the work as full time specialist in horticulture.

As reported by Mr. Shaw, the work during the past year was directed toward two main objectives—the improvement of the quality of fruit grown in the State, and more careful grading and packing methods. The means employed to accomplish results along these lines included demonstrations, orchard field meetings, addresses at public gatherings, publicity, work with horticultural organizations and personal contacts.

Methods of Work

Demonstrations, used to show recommended practices, totaled 414 and were conducted in all the counties of the State.

One hundred and three orchard field meetings, attended by 1,109 persons, were held to show recommended practices in pruning, spraying, thinning, grading and packing. In addition the specialist reports a total of 155 demonstration orchards visited, visits to 170 others, 21 meetings addressed, thirty-seven conferences attended, seven community shows and fairs judged, and 573 interviews.

The spray service inaugurated two years ago in cooperation with the U. S. Weather Bureau and the specialists in plant

pathology and entomology was continued with marked success during the year. This service made it possible to supply growers with exact and definite information regarding the best time to spray, based upon field observations of the development of diseases and insect pests. The information was telegraphed to the county agents in the four leading fruit growing counties and was transmitted to the growers by means of spray service cards. This service covered both apples and peaches and was used by approximately 750 growers.



A DEMONSTRATION IN CANTALOUPE GROWING

Central Packing Plants

During the year efforts were continued to secure the establishment of central grading and packing plants with a view to bringing about a better standardization of pack at a reduction of operating cost. There were no new developments in this line of work during the year although the Pen Mar Fruit Growers' Cooperative Association, which was started in the Ringgold section of Washington County two years ago, continued to function and showed marked growth. Starting with ten members, this packing house last season handled the fruit for twenty growers. An enlarged building was necessary and

a larger sized grading machine had to be installed. About fifty per cent of the apples of the past season was packed in boxes, an interesting development in view of the fact that only barreled fruit was handled at the outset.

Shipping Point Inspection

Shipping point inspection service, inaugurated in Maryland the past season, was limited entirely to the orchard fruits and to a few selected loading points, the idea being to give the service a trial in Maryland before launching it on a larger scale. Easton, Hancock, New Windsor and Town Creek were the points selected and growers willingly cooperated with the county agent and the Extension Service in giving the inspection a fair trial.

Almost without exception the service proved of value to the grower in providing an easier market for his product. It likewise had the effect of bringing to the attention of growers defects in grading and packing possible of being remedied. The specialist devoted a large amount of time during the summer in assisting in this marketing work.

Horticultural Society Meetings

Mr. S. B. Shaw continued his duties as secretary of the Maryland State Horticultural Society during the year and in this capacity issued a timely news letter to fruit growers of the State. The Society held several important meetings during the year, including its annual meeting and the summer field meeting which was in conjunction with a meeting of the American Pomological Society.

For the last three months of the year, Mr. A. F. Vierheller reports that his efforts consisted chiefly in acquainting himself with the work in progress and in visiting the various counties. He reports thirty-one demonstrations for the period, eleven advisory visits, two addresses delivered and nine fairs or shows judged.

Dr. E. C. Auchter, head of the Department of Horticulture, devotes part time to Extension activities. He reports having made a large number of visits in an advisory capacity as well as aiding in the conduct of several demonstrations. During the coming year it is hoped that Dr. Auchter will be able to devote more time to field activities.

VEGETABLE AND LANDSCAPE GARDENING

The outstanding features of the work in vegetable and landscape gardening during the past year, as reported by Mr. W. R. Ballard, specialist in vegetable and landscape gardening, centered around efforts to improve the canning tomato crop and the commercial cabbage crop of the State and the promotion of certain features of ornamental horticulture.

The problem of increasing the yield per acre of canning tomatoes, which has been the subject of concentrated effort on the part of the Extension Service for the past three years, offered an important field for work during the year. The community plant bed demonstrations, designed to show the proper methods of producing vigorous plants and the results obtainable from such plants, were again employed as the chief features of the tomato improvement program. Mr. A. D. Radebaugh who commenced this work in Cecil County in 1922 continued to supervise the plant beds and worked with the specialists in this project.



A GOOD TOMATO PLANT IS THE FIRST STEP TO INCREASED YIELD

Tomato Plant Beds

The establishment of community plant bed demonstrations in the leading tomato growing counties of the State was pre-

ceded by a campaign of publicity to familiarize growers with the purpose of the demonstrations and methods of making them successful. Meetings, newspaper articles and illustrated lectures, were the methods used in the publicity campaign, which was followed by the necessary organization for establishing the beds.

Forty-two demonstration plant beds were established in twelve counties of the State and while some of them proved complete failures and others were considerably damaged as the result of most unfavorable weather conditions, the majority were successful and produced an estimated total of nine million plants. As in former years, the well-grown plants from the community beds demonstrated their superiority over the average run of plants and where records were kept showed yields of from four to eleven tons per acre. While it is impossible to estimate the exact influence on the average production of canning tomatoes in the State as a result of the plant beds, it is significant that in the face of a most inauspicious season, the average yield for the State was 3.3 tons per acre, a figure but slightly below the average production in years before plant beds were introduced.

Other Plant Methods

Several other methods of securing plants of superior quality to set in the field were developed during the year. Among them was the production of plants in cold frames in some sections of the State where early tomatoes can be grown for the northern markets and the plants kept in bearing for the early canning season. The use of plants grown in the south and shipped into the State was tried and proved fairly satisfactory, although not sufficiently successful to warrant its adoption as a general practice.

Cooperation of both growers and canners in the community plant bed demonstrations was apparent throughout the year and a substantial contribution by the Tri-State Packers' Association to promote the work assisted greatly in supplying the proper supervision.

The bulletin, "More Tomatoes from Fewer Acres," was revised and reprinted, about three thousand copies being distributed during the year.

Tomato Seed Saved

One of the important developments of the work in connection with the community plant beds has been the increased interest in the saving of seed from carefully selected plants. Considerable quantities of seed were saved in many counties, Harford County reporting a total of approximately 500 pounds. In Cecil County thirty pounds of seed from a carefully selected strain was saved and turned over to the Tri-State Packers' Association for distribution.

Resistant Cabbage Introduced

The work with cabbage during the year was directed to overcoming the "yellows", a disease that has become so serious in certain trucking sections of Baltimore county that returns from the crop have been greatly reduced. Strains of cabbage, resistant to this disease, were introduced and planted in a field where previously seventy-five per cent of the plants had died. The demonstration was successful and the evidence showed that the resistant strains were equal to the commercial types in market qualities and in adaptability to the section.

Mr. Ballard reports a growing interest in the landscape gardening projects as shown by the increasing number of requests for advice and assistance along these lines. Twenty-one formal landscape demonstrations for home grounds and fourteen for school grounds were conducted during the year. The specialist assisted in staging three flower shows during the year, spent two days judging flower gardens in Baltimore City, assisted in staging a horticultural exhibit at the Timonium Fair, was called upon to judge exhibits at sixteen shows, and as secretary of the Maryland Vegetable Growers' Association, has issued a monthly news letter.

ENTOMOLOGY

The growing demand for improved quality in agricultural products is each year adding to the importance of proper insect control. Many of the truck and fruit crops produced in Maryland are particularly susceptible to insect injury and frequently the success of their culture depends upon the use of effective control measures.

The value of the Extension Service work in entomology now largely depends on supplying growers with the necessary information regarding the kind of material, the best time to apply it, the best method to use and the number of applications necessary. The necessity of controlling insect pests and the practicability of the measures advocated are no longer questioned.

The work in entomology undertaken by Mr. E. N. Cory, Extension specialist in entomology, and his assistants during the year have included: A spray service to the fruit growers, demonstrations in the field and in storehouses, investigations of insect outbreaks in various parts of the State, daily correspondence with individuals regarding particular problems of insect control, the publication of information cards, the preparation of exhibits for fairs and community shows, assistance to the beekeeping industry of the State and participation in meetings and conferences.

Special Spray Service

The spray service for fruit growers, conducted in cooperation with the Extension specialists in horticulture and plant pathology, was designed to furnish orchardists with exact information regarding the best time to spray for the control of insect pests and plant diseases. Extremely wet weather during the season made control work difficult, but the observations made in the field supplied accurate information on which growers could base their spraying operations.

Demonstrations were conducted in all parts of the State. In the western fruit growing section, the self-mixing dusting machine was demonstrated on both apple and peach trees. Other demonstrations were for the control of the green peach aphid, the red mite, the curculio, the terrapin scale, the San Jose scale and the codling moth.

With truck crops, Mr. Cory reports many demonstrations, particularly for the control of insect pests of the cantaloupe. There were many special calls for assistance in controlling various insect pests such as *Andrena Prelaxa* and the Mediterranean Flour Moth.

During the year Mr. Cory served as secretary of the Maryland Beekeepers' Association. Several very successful meetings were held by this organization during the year, including

a winter meeting in Baltimore and two field meetings. The work of the State Horticultural Department has been conducted as heretofore.

PLANT PATHOLOGY

While the proper control of plant disease is now well recognized, the subject is constantly growing more important in Maryland where the tendency is to produce increasing quantities of fruits and vegetables for human consumption. Aside from the fact that growers annually sustain heavy losses as a result of reduced yields attributable to certain plant diseases, market demands are becoming increasingly critical and prices for products showing the effects of disease are correspondingly low.

According to the report of the Extension work in plant pathology submitted for the past year by Mr. R. A. Jehle, Extension plant pathologist, Mr. C. E. Temple and Mr. H. A. Hunter, who serve as part time specialists, the chief problems encountered have been those connected with the orchard and trucking industries. Pretty largely the work has been directed to the control of diseases of beans, cabbage, cantaloupes, Irish and sweet potatoes, peas, tomatoes, and other fruits. In addition, however, attention has been directed to certain diseases of corn, wheat and tobacco while the certification of seed potatoes has been a project of prime importance and one almost exclusively conducted by the Extension pathologist.

It has, of course, been impossible to direct efforts to all diseases of any crop or to diseases of all crops produced in the State. The work, however, has been planned according to the importance of the crop in the State, the losses occasioned by the disease, the prevalence of the disease and its severity, and the practicability and expense of control methods involved.

In the trucking areas of the State, surveys conducted during the past year revealed a prevalence of blight and anthracnose of beans that is causing severe losses to growers. While the season was too far advanced to undertake remedies for this situation the past year, plans are being made to test out resistant varieties and also for the production of disease-free seed.

Severe losses were likewise sustained by producers of cabbage as a result of "yellows" in some of the more important trucking areas of Baltimore County. This problem during the year was attacked by the introduction of resistant varieties which proved successful under the conditions prevailing in the area. Seed of thirteen varieties and strains was introduced and sown in adjacent plots and given similar treatment. A comparison of varieties was thus possible and a number of strains demonstrated sufficient superiority to warrant their use in place of the strains previously grown.

In the cantaloupe growing sections of the Eastern Shore a number of successful demonstrations were conducted with the use of dusts for control of blight and gave satisfactory results in practically all cases.

Corn Root Rot

The work in the selection of corn with special reference to the control of root rot was continued during the year in cooperation with the specialist in agronomy and the county agents. Losses in the State due to root rot are estimated annually at approximately 10 per cent of the crop, or about \$2,000,000. The importance of the disease, therefore, is apparent. The demonstrations were conducted along the same lines as in previous years, the results again indicating the value of the work and its practical character.



EXAMINING THE YOUNG CORN

Producing Certified Seed Potatoes

The potato seed certification work conducted during the year was on an improved basis and growers were required to adopt very much stricter methods of production than formerly, the result being an improvement in the quality of the stock certified. New requirements for certification were outlined following the organization of the Maryland Seed Certification Board, made up of the Extension specialists in plant pathology, horticulture, entomology, agronomy and marketing. Three field inspections and two bin inspections were required and other regulations were adopted to improve the quality of certified seed grown in the State. Despite the more rigid requirements, more than the usual number of growers made application for inspections and while many were disqualified for one reason or another, more potatoes were certified in the State than in any former year. Twenty-six growers with a total of approximately 160 acres and an aggregate production of close to 15,000 bushels succeeded in having their crops certified.

Control of Wildfire in Tobacco

Considerable effort was devoted to introducing methods for the control of wildfire in tobacco. The disease, which apparently has been in the State but a few years, has become sufficiently widespread and is sufficiently serious to cause serious losses in the tobacco growing regions. Methods for its control were chiefly directed to the handling of the plant bed and to spraying with Bordeaux. It is estimated that fully twenty-five per cent of the beds in the State were saved from injury by the disease as a result of the Extension work.

The specialists report work in connection with the development of disease resistant peas and in the control of numerous orchard, wheat, sweet potato and tomato diseases.

RURAL ORGANIZATION AND MARKETING

A fine spirit of cooperation has characterized the progress of the past year in rural organization and marketing.

As reported by Dr. F. B. Bomberger, assistant director of the Extension Service and specialist in rural organization and marketing, this cooperation has been particularly evident in efforts to discover the needs of communities and counties and

to work out the solution of the problems presented. At no previous time has this spirit of cooperation been stronger than it is at present. In consequence the Extension forces feel more certain of backing and support in their work while organizations of farm people have been strengthened because of the constructive work accomplished.

The task, begun last year, of getting local units of the Farm Bureau organized, and working in pursuit of definite programs, has been prosecuted vigorously throughout the counties where the Farm Bureaus have been organized. In the non-Farm Bureau counties, of which there yet remain five, cooperation with other organizations of rural people has been no less cordial and effective.

The Farm Bureau has maintained a membership of about seven thousand during the year and the leaders are looking forward to a substantial increase during the coming year.

It is gratifying to note that during the year a definite cooperative agreement was entered into by the State Grange and the Maryland Farm Bureau Federation in order that any antagonistic feelings between these organizations might be allayed and corrected even before they should develop. This agreement recognizes the rights, duties, privileges and functions of each of these organizations and pledges both of them and their membership to a close cooperation in every activity looking to the promotion of the welfare of rural people.

Marketing

While there have been some noteworthy developments both in cooperative buying and selling during the past year, probably the most significant features of the period have been the steady improvement and sound progress that have marked previously established cooperative agencies. Every effort has been made to encourage marketing developments along these lines and to emphasize the importance of improved methods of production as essential features of sound marketing practice.

Poultry Products: The plan of organizing the poultry producers of the State as members of the Atlantic Coast Poultry Producers' Association, through cooperation of the Maryland Farm Bureau Federation and the Maryland Poultry Producers' Association, with a view to opening branches in Baltimore

and Washington, was temporarily abandoned, insofar as the last named objective is concerned, because of necessary reorganization of the Atlantic Coast Association.

The reorganization of the Atlantic Coast Poultry Producers' Association, however, was of imperative necessity and required immediate attention. Assistance was given in formulating plans for this reorganization and the recommended changes in methods and management proved entirely satisfactory. The opening of branches of the Association in Baltimore and Washington, however, was abandoned, but other plans are being matured which it is hoped will provide a satisfactory cooperative agency for marketing farm-produced eggs in the Baltimore, Washington or some other advantageous market. In this connection Dr. S. H. De Vault, representing the Extension Service, has conducted a preliminary survey of egg marketing practices in Baltimore that has supplied much valuable information.

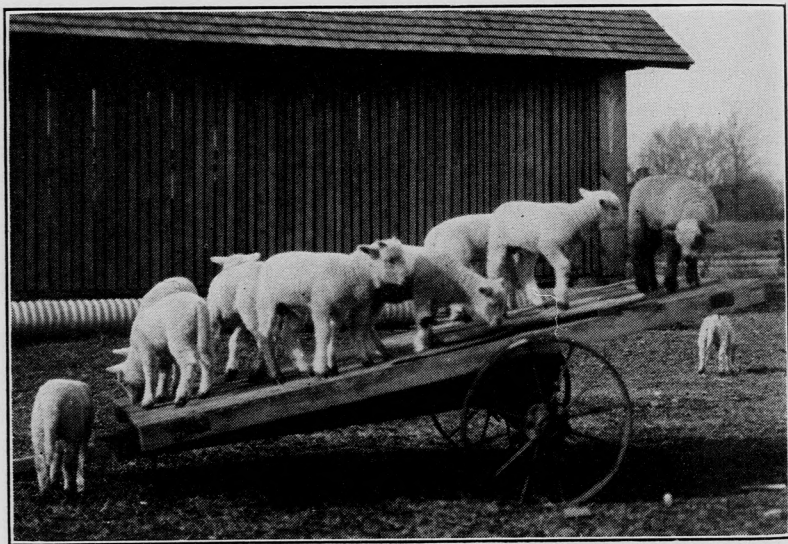
A new development in the cooperative marketing of poultry products during the year was the successful shipment of dressed poultry from Dorchester County. Two separate shipments were made, the first consisting of 4,500 pounds of dressed poultry just prior to Thanksgiving and the second consisting of 9,500 pounds for the Christmas trade. The poultry was carefully graded and packed and sold at a substantial premium on the New York market to which it was consigned.

Wheat: While no marked developments have taken place in the marketing of wheat during the year, cooperative farmers' associations in Washington and Frederick counties have continued the successful marketing of this crop by diverting it from Baltimore to southern markets.

Canning Crops: Never before, perhaps, have conditions been more chaotic in the market for canning crops, especially tomatoes, than during the past year. At the very outset it seemed that there would be large plantings, and contract prices were accordingly low—so low indeed that in two of the chief tomato growing counties of the Eastern Shore growers proceeded to organize cooperative associations in order to strengthen their position to bargain with the canners. As a result of a very late, wet spring and a dry summer the expected crop of

tomatoes was greatly curtailed, and led to wild competitive buying on the open market. Many contracts were disregarded and prices soared to exorbitant figures.

In sharp contrast to this disordered situation was the experience of canners and growers who were parties to the co-operative canning agreements at plants at Manokin, Hurlock and Beckwith Neck. While differing in detail, all of these enterprises were conducted on the basis of an agreed minimum allowance per basket to the grower and a definite minimum to cover manufacturing costs to the canner. Net profits were then divided between grower and canner in a previously stipulated proportion. While still in an experimental state, the results of the enterprises were highly satisfactory and hold out promise of possible developments of a similar character elsewhere in the State.



GETTING READY FOR MARKET IN JANUARY

Livestock: A survey of the Baltimore market to discover the possibilities of cooperative livestock marketing at that point was the chief feature of the work in this connection during the year. Pending further developments, an educational campaign is being conducted to promote work along this line.

Orchard Fruits: The inauguration of shipping point inspection was the outstanding development during the year in the marketing of orchard fruits. Two community packing houses, organized in previous years, operated successfully during the season and at Easton, as an outcome of the experience derived from shipping point inspection of apples and peaches, plans are maturing for the organization of a central or community packing house for that area.

Small Fruits and Vegetables: Progress in the marketing of small fruits and vegetables has been slow. During the past year, however, several interesting developments have taken place. The Tilghman Company again successfully conducted a semi-cooperative enterprise in the production and marketing of cantaloupes. The very satisfactory development in the f. o. b. auction sale method of handling strawberries minimized the need for cooperative action on the part of the growers.

Tomatoes: In Talbot County a new enterprise was started during the year in the production, grading and marketing of tomatoes for the early northern markets. Specialists and county agents cooperated with the Farm Bureau Cooperative Association in arranging for the planting of 39 acres of early tomatoes by 34 growers. The fruit was assembled at a central packing house where it was carefully graded, packed and attractively labeled. Despite the poor season, which greatly reduced the expected yield and necessitated shipments by express instead of in carload lots, excellent prices were obtained and growers were well satisfied with the demonstration.

Wool: While efforts to form a State wide wool pool early in 1924 failed, a number of counties conducted successful pools and sold the product cooperatively. Much educational work has been done in this connection and should produce good results in the future.

Tobacco: The significant feature in the marketing of tobacco during the year was the substantial increase in the proportion of the crop sold by the Maryland Tobacco Growers' Association. This followed as a result of the membership campaign of the previous year and made it possible for the organization to handle approximately 61 per cent of the total crop produced in the State. Sales during the year totaled 19,760

hogsheads, valued at \$4,150,000. The Association purchased for its members supplies to the extent of \$177,000 during the year. All of this business was conducted on a margin of one per cent. The membership is reported at 4,520.

Dairy Products: The three cooperative dairy marketing associations with membership in Maryland maintained their established positions during the year. A campaign to lower the bacteria count of milk on the Baltimore market received the cooperation of the Maryland State Dairymen's Association, the dealers, transportation agencies, the Baltimore City Board of Health and the University of Maryland Extension Service. A somewhat similar campaign was undertaken among producers in the Inter-State Milk Producers' Association. These campaigns will undoubtedly have some bearing on the improvement of existing marketing conditions. The Maryland-Virginia Milk Producers' Association continued to experience some difficulties but made progress in the important matter of establishing better relationship with Washington distributors. Outside of these three big organizations' activities, the formation of the Annapolis Milk Producers' Association has probably been the most interesting development. This organization is composed of dairymen shipping milk to the Annapolis market. It was organized with the help of the Extension Service and is functioning with a considerable degree of success and in good harmony with the principal dealers in whole milk in Annapolis.

Soybean Seed: The successful marketing of the soybean seed crop grown in Somerset County the past year was a demonstration of the value of cooperation and sound marketing practice. While the business was not large, aggregating about \$6,670, the average price at which the soybeans were sold netted the growers about sixty cents a bushel more than would have been possible if sold in small lots by the individual producers. Efforts were made to sell only good, clean seed and the prices quoted averaged twenty-five cents a bushel under prevailing wholesale figures. The organization of growers is expected to continue under the name of the Somerset County Soybean Growers' Association.

Seed Potatoes: The production of certified seed potatoes in the State has for several years given rise to a cooperative

marketing enterprise that recently has not been entirely satisfactory. More rigid requirements for certification seemed necessary and these were established during the past year by the Maryland Seed Certification Board. Approximately 14,875 bushels of seed potatoes were inspected and certified under the new regulations and were to be marketed in accordance with the requirements specified by the Board. It is, of course, too early to predict the outcome of this project, but indications point to its success.

Tomato Plants: Concident with the establishment of central or community plant beds for the production of tomato plants of good quality, there has developed a new type of



INOCULATING SOYBEANS

marketing that seeks to meet the demands for tomato plants grown under favorable conditions. A number of such enterprises were successfully conducted during the past year. In Kent County a boy club member grew 400,000 plants which were sold for \$1.50 a thousand. In Somerset County three growers produced 432,000 plants which were sold to growers within the County. Talbot County tomato growers purchased

100,000 plants grown in Somerset County. These are but isolated instances indicating that a new marketing enterprise and its attendant problems are developing.

Chenopodium Oil: During the year plans have been prepared for the organization of a cooperative marketing association to handle chenopodium or wormseed oil for growers in Carroll County. No report on results is yet possible as organization is yet in the early stages of development. Chief interest in the project centers in the unique character of the industry and its importance in a restricted area in Carroll County.

In concluding his report on marketing, Dr. Bomberger points to the fact that every county in the State is now served by one or more cooperative enterprises and that the aggregate value of farm products marketed cooperatively is conservatively estimated at \$20,000,000 annually.

Cooperative Purchasing

Cooperative purchasing throughout the State has expanded greatly during the year. Noteworthy progress has been made by the Agricultural Corporation, which was organized several years ago. During the past year this organization did business in excess of \$1,000,000, wiped out indebtedness previously incurred, declared its first stock dividend and still retained a substantial surplus.

Considerable effort has been devoted during the year to plans and efforts for organizing county cooperative purchasing associations in cooperation with the Maryland Farm Bureau Federation, the ultimate aim being the federation of these units into a State-wide purchasing agency.

In addition to the business transacted by the Agricultural Corporation, considerable cooperative purchasing has been done by county and local associations independently. A fair estimate of this business would be \$500,000. An estimated saving of fifteen per cent on the total volume of cooperative purchasing business done in the State the past year would show about \$225,000 saved for the farmers of the State.

The principal commodities purchased were feed, fertilizer, binder twine, coal, seeds, lime, spray materials and containers.

Shipping Point Inspection

With the creation during the latter part of the year of the State Department of Markets, Dr. Bomberger assumed the duties of chief of this department in addition to his other work in the Extension Service.

Prior to July, 1924, there was no agency in Maryland authorized to carry on inspection of fruits and vegetables. All work in marketing undertaken in the State has been under the direction of the marketing specialist attached to the Extension Service. When it is remembered that the Extension Service marketing specialist was, at the same time, assistant director of the Extension Service and specialist in rural organization, it will be understood that not very much time could be given to the problem of marketing, as a separate and distinct project. Incidentally there were no funds available from any source for use in a separate and distinct marketing project.

The General Assembly of 1924 included in the budget of the Extension Service the sum of \$10,000 a year for marketing work. Accordingly the State Board of Agriculture authorized in July, 1924, the establishment of the Maryland State Department of Markets for the purpose of carrying on work in standardization and inspection, cooperative marketing information and surveys.

The Extension Specialist in Marketing was made chief of the newly created department; Mr. S. B. Shaw, Extension horticulturist, was appointed marketing specialist and chief inspector; and Dr. S. H. De Vault, of the Department of Agricultural Economics of the University, was employed as assistant specialist in marketing on part time.

Tentative arrangements had previously been made with the Bureau of Agricultural Economics, U. S. Department of Agriculture, for carrying on shipping point inspection of peaches and apples at the orchards of the American Fruit Growers at Hancock, so that when the State Department of Markets was created a cooperative agreement was reached to extend the scope of the service to other parts of the State.

The service was attempted on a limited scale and inspections were begun at Hancock and Easton and later extended to New Windsor. Five inspectors were employed in addition to Mr. Shaw. During the season 108 cars of peaches and 313 cars of

apples were inspected. Of this number eleven were reinspected at terminal markets, the original inspection being sustained in every case. Fifteen growers in the Hancock section, seven in the Easton area and one at New Windsor participated in the service.

The inspection was furnished the growers at cost and without exception proved satisfactory. It will be the object of the Maryland State Department of Markets, cooperating with the Bureau of Agricultural Economics, to extend this service throughout the State, as rapidly as growers desire it and the limited funds now available will permit. Plans for the administration of the work of the department are being formulated so as to extend the scope of its activities as far as available funds will permit.

During the year Dr. Bomberger was elected secretary-treasurer of the National Association of Marketing Officials, formerly the National Association of State Marketing Officials, and served during the year as chairman of its committee on Sales and Consignments.

In his capacity as assistant director of the Extension Service, Dr. Bomberger made 113 visits to the counties to supervise the work of the agents. He attended 127 meetings, delivered 96 addresses and traveled 14,752 miles.

The work of Dr. S. H. De Vault, assistant specialist in marketing, has been devoted primarily to assisting various phases of the marketing project during the year.

He has conducted several important and necessary surveys which have thrown light on specific marketing problems in the State. A study of the conditions prevailing in the Baltimore livestock market was of much help in outlining a suitable course of action when the subject of cooperative livestock marketing was under serious consideration. Numerous weaknesses in the existing system were pointed out together with facts and figures on the quantity of livestock consigned to this market.

Similarly a study of the egg market in Baltimore prepared the way for constructive plans for a suitable agency to market more satisfactorily than at present farm produced eggs.

At the instance of the Maryland Farm Bureau Federation Dr. De Vault also made an exhaustive investigation of telephone rates and service in the State.

Dr. De Vault made 37 visits to agents, attended 49 meetings, delivered 11 addresses and traveled 4,087 miles in pursuance of his duties.

GENERAL EDUCATIONAL EXTENSION

During the past year Prof. C. S. Richardson, in charge of general educational Extension, reports that the work embracing four branches, lectures, motion pictures, correspondence courses and high school public discussion league, has been making progress. Only one of these branches has been particularly emphasized and that is the High School Public Discussion League.

Lectures

One of the functions of this Division has been to supply lecturers upon special request from the Director of Extension Service. There are times when the character of the lecture requested does not place it under the jurisdiction of any of the agricultural specialists. It then comes within the province of the Educational Extension Division to supply, whenever possible, a lecturer for such an occasion. As much attention as possible has been devoted to this phase of the work. Prof. Richardson, Dean F. A. Lee and others of the University faculty have assisted in the work. Prof. Richardson reports having delivered 30 public addresses in the State during the year.

Motion Pictures

A limited number of motion pictures are held for distribution to the rural community centers throughout the state and orders for pictures are submitted to the U. S. Department of Agriculture upon request from various communities when it is impossible to fill such requests in this office. This distribution of pictures among rural folks has been of great educational value and it is regretted that this office is handicapped in this campaign by a lack of funds to purchase suitable films.

Average of reels on hand for distribution....	75
Total number of films exhibited.....	300
Total number of persons in attendance.....	20,000

Correspondence Courses

Only a limited amount of activity continues to be possible in this branch of educational extension work owing to the lack of facilities. It is felt that a large number of students might be interested in correspondence courses if suitable lessons were available. There is undoubtedly a splendid field for work in this direction. The Poultry Course has been revised, and 87 students were enrolled in this course during the year.

High School Public Discussion League

The work in this branch of activity, which was organized five years ago, has continued to make progress. Enjoying the hearty support of the State Department of Education, it has developed into a valuable institution. Seventy-five approved high schools in the State were enrolled in the League during the past year. The subject chosen for debate was "Government Ownership of Railroads." It is impossible to estimate the educational value of this work to the students of the various schools and to the many adults who attended the debates held. The State Superintendent of Education considers this work as a most valuable adjunct to his high school program. The increase in interest in the work of the League has been very noticeable during the past year. The Baltimore Sun gave hearty cooperation by preparing and publishing articles in seven issues of the morning paper on both sides of the question. Copies were furnished the principals of the high schools by The Sun free of charge. A package library was also accumulated by this office and furnished upon request to the students participating in the debates.

It is hoped that when the condition of the Extension finances will permit a special appropriation will be made for this work on the basis of a regular budget. Such an investment would bring large returns in the social and intellectual advancement of the people of the State.

FORESTRY

The forestry extension program in Maryland, after having been inactive on account of lack of available funds, was officially inaugurated late in the fall of 1923, and gave evident promise of real success in 1924; but this year's work had

hardly been started when the forestry specialist, Mr. Samuel Corbin, was suddenly stricken with heart-failure and died in the field while conducting a planting demonstration. This occurred February 25th, at the very opening of the planting season; and since Mr. Corbin was the only forestry specialist on the Extension staff, it was necessary to cancel practically all of the demonstrations, both planting and thinning, scheduled for some weeks in advance.



A FORESTRY DEMONSTRATION

Nothing further was attempted in the way of forestry activities until late in the summer of the present year, when Mr. F. B. Trenk was designated as Forestry specialist in cooperation with the State Department of Forestry.

The 1924 Program of Work

Mr. F. B. Trenk reports that four phases of the work have received the attention of the Forestry specialist: Replanting waste or cut-over lands in need of this attention, lectures on forestry, publicity through county newspapers. To date this work has been largely localized in one region of the State, namely the Eastern Shore. Here the growth and management of loblolly pine is a generally recognized adjunct to farming. The tree in question grows rapidly and is in constant demand

in this section for saw timber, barrel and crate material, piling, and to a limited extent, ship building. Demonstrations of proper methods for reestablishment and care of this tree while growing offer an ideal opportunity for making a successful beginning in forestry Extension in the State.

The specialist has made contacts with all county agents and it is planned to have specified times called Forestry Week in the several counties for arousing the people to the importance of demonstration work in this important project. Such "Weeks" have been held in five counties with gratifying results.

The specialist reports conducting in cooperation with the agents nine demonstrations in planting of loblolly pine in five counties and more are planned in the counties the coming year. Thinning work has been largely confined to young thickets of loblolly pine on the Eastern Shore. Forty-five thinning demonstrations have been conducted in twelve counties, while Mr. Trenk has made 80 examinations of woodlands in various parts of the State. He has given a total of 14 lectures on forestry.

The Extension Service has the warm cooperation of Dr. F. W. Besley, the State Forester, who also assists the Extension Work when possible.

It is hoped that much more attention can be given this project, as it is estimated that 65 per cent of the forests of Maryland occupy the average farm woodland.

SOUTHERN MARYLAND IMMIGRATION COMMISSION

The Extension Service has cooperated in every possible manner with the Southern Maryland Immigration Commission which is endeavoring to develop the opportunities and possibilities of this section of the State by securing desirable immigrants. The specialists and county agents have assisted the Commission in securing and preparing exhibit material for exhibits at various national fairs and exhibitions. The Service stands ready to assist all persons locating in Southern Maryland. It is felt that the advertisement of Southern Maryland's resources throughout the country will be of great advantage to the State.

MISCELLANEOUS WORK

The Service is indebted to various departments of the Institution for assistance by specialists and especially to the College of Agriculture and the Experiment Station for the constant aid that is given in various lines of work. Through the sympathetic cooperation of Dr. H. J. Patterson, the Director of the Experiment Station, and other members of the Station staff, especially Prof. W. B. Kemp, Prof. J. E. Metzger, Dr. A. G. McCall, Dr. De Voe Meade, Dr. E. N. Pickens, all forces have worked together to serve the people of the State in their various requests for aid and assistance.

SUMMARY OF SPECIALISTS' WORK FOR 1924

Following is a statistical summary of the work of the Extension specialists for the past year.

Total visits to demonstrations.....	1,920
Visits other than to demonstrations.....	1,972
Meetings and conferences attended.....	2,287
Total attendance at these meetings.....	129,322
Addresses delivered.....	982
Fairs and community shows judged.....	83
Letters written (first class).....	33,974
Miles traveled.....	229,554
Average days in field.....	184
Average days in office.....	118

CONCLUSION

An attempt has been made in this report to give in summarized style the activities of the Service during the past year. This year concludes a decade of Extension work in the State. It is planned to prepare a ten-year summary of the development of the work and its effect upon the various agricultural industries of the State. In no other State could a fairer estimate of the scope and effect of Extension education be obtained as the Service has had the unqualified support of the people and steady growth has marked its development during the ten-year period.

While receiving splendid financial support from the Federal, State and County Governments, yet there are constantly increasing demands for service from the people. It has been most difficult during the past year to expand our budget to meet the developments of work under the various projects.

This, however, is a healthy situation and demonstrates the appreciation of the rural people in accepting suggestions and adopting better practices, which in turn lead to further demands to meet modern conditions.

The relations of the cooperative work with the bureaus and Extension Service of the U. S. Department of Agriculture could not be more sympathetic and cooperative. Valuable assistance has been rendered by the various representatives of the Department of Agriculture who have visited our State.

The Extension Service is also indebted to the farm organizations of this State with which we are working in closest harmony. The success of our efforts has been largely due to an appreciation of our problems and relations by such leaders as the President and the Secretary of the Farm Bureau Federation, the Master of the State Grange, the heads of women's organizations and community groups.

The Service is proud of its accomplishments along many lines, but in no field has it served to better purpose, although against increasingly difficult obstacles, than in the development of cooperative marketing of farm crops. This problem has been constantly before us and, while limited in funds, we have endeavored to follow a constructive course, avoiding radical action and leading our producers to see the fundamental necessity of first having standardized products before attempting the more difficult task of cooperative marketing. In this we have been guided by the best principles of business.

The outlook for Extension work in Maryland is bright. It has all the possibilities that this State offers by reason of the variety of soil, equable climate, nearness to markets and a sympathetic rural people for the great development of our agricultural industry. These opportunity present a challenge to every Extension worker, be he specialist or agent, to do his utmost in service to the people. We believe our Extension forces are doing their best.

I wish to reiterate my gratitude to the members of the Extension Service staff and to President A. F. Woods, who is always sympathetic and deeply interested in the promotion of Extension work in the State.

FINANCIAL REPORT FOR FISCAL YEAR ENDING JUNE 30, 1924, IN ACCOUNT WITH THE UNITED STATES AND STATE APPROPRIATIONS UNDER SMITH-LEVER EXTENSION ACT, 1923-1924.

	Smith-Lever Funds		
	Total	Federal	State
Unexpended balance from 1922-23			
To receipts from the Treasurer of the United States and from State sources as per appropriations for fiscal year ended June 30, 1924, under act of Congress approved May 8, 1914 (Smith-Lever Act)	\$131,927.02	\$70,963.51	\$60,963.51
By personal services	110,132.63	60,245.07	49,887.56
Supplies and materials	780.49	308.98	471.51
Communication service	637.56	217.89	419.67
Travel expenses	16,537.16	8,579.96	7,957.20
Transportation of things (service)	66.98	32.41	34.57
Printing, binding and cuts for publications	2,557.73	573.26	1,984.47
Furnishing of heat, light, power, water, and electricity (service)	1,000.00	1,000.00	
Equipment	212.97	5.94	207.03
Miscellaneous	1.50		1.50
Unexpended balance			
Total	\$131,927.02	\$70,963.51	\$60,963.51

SUMMARY STATEMENT OF EXPENDITURES BY PROJECTS, SHOWING SOURCES OF FUNDS USED
FOR EXTENSION WORK, FISCAL YEAR ENDING JUNE 30, 1924.

	Total	Smith-Lever		State	County
		Federal	State		
Administration	\$ 22,349.10	\$ 9,778.89	\$ 7,238.93	\$ 5,331.28	
Publications	2,997.18	590.21	2,002.92	404.05	
County Agent Work	104,790.49	36,816.26	19,106.90	23,267.33	\$ 25,600.00
Home Demonstration Work	59,151.66	12,220.91	10,242.80	17,916.95	18,771.00
Boys' Club Work	7,483.97	1,989.41	4,962.32	532.24	
Agronomy	4,331.35	837.14	3,074.16	420.05	
Animal Industry	3,763.38	731.55	2,694.56	337.27	
Horticulture	8,951.41	4,434.64	3,985.75	531.02	
Dairying	4,195.78	1,077.72	2,520.34	597.72	
Marketing	2,629.84	214.51	1,482.62	932.71	
Poultry	3,504.95	320.86	2,880.33	303.76	
Entomology	6,423.81	930.31	576.47	4,917.03	
Pathology	4,449.60	1,021.10	195.41	3,233.09	
General Extension	5,372.43			5,372.43	
Total expenditures	\$240,394.95	\$70,963.51	\$60,963.51	\$64,096.93	\$44,371.00
Total	\$240,394.95	\$70,963.51	\$60,963.51	\$64,096.93	\$44,371.00

SUMMARY OF EXPENDITURES BY PROJECTS, SHOWING CLASSIFICATION OF EXPENDITURES FROM
ALL FUNDS USED FOR EXTENSION WORK, FISCAL YEAR ENDING JUNE 30, 1924.

	Total	Personal Service	Supplies and Materials	Communication Service	Travel Expenses	Transportation of Things	Printing, Binding, and Distributing Publications	Heat, Light, Power, Water, and Electricity	Equipment	Miscellaneous
Administration	\$22,349.10	\$16,222.14	\$2,949.03	\$1,119.28	\$52.95	\$141.94	.....	\$1,000.00	\$864.66	.....
Publications	2,997.18	.....	.....	36.90	.....	.....	\$2,960.28	.....	.....	.....
County Agent Work	104,790.49	79,903.94	3,015.15	12.80	21,859.10	.....	.....	.....	.....	.....
Home Demonstration Work. 59,151.66		42,885.12	1,951.00	10.95	14,295.78	7.31	.....	.....	.....	1.50
Boys' Club Work	7,483.97	5,644.14	.....	8.98	1,830.85	.....	.....	.....	.....	.....
Agronomy	4,331.35	3,150.00	.....	.35	1,181.00	.....	.....	.....	.....	.....
Animal Industry	3,763.38	3,000.00	.....	3.20	760.18	.....	.....	.....	.....	.....
Horticulture	8,951.41	7,550.00	.....	4.49	1,396.92	.....	.....	.....	.....	.....
Dairying	4,195.78	3,300.00	.....	1.75	894.03	.....	.....	.....	.....	.....
Marketing	2,629.84	1,960.00	.....	.....	669.84	.....	.....	.....	.....	.....
Poultry	3,504.95	2,400.00	.....	3.35	1,101.60	.....	.....	.....	.....	.....
Entomology	6,428.81	4,186.00	165.65	155.29	1,826.34	2.82	.....	.....	87.71	.....
Pathology	4,449.60	3,200.09	.....	9.63	1,239.88	.....	.....	.....	.....	.....
General Extension	5,372.43	2,108.68	258.89	1.20	933.43	920.95	.....	.....	1,017.89	131.39
Total expenditures	\$240,394.95	\$175,510.11	\$8,339.72	\$1,367.67	\$48,041.00	\$1,073.02	\$2,960.28	\$1,000.00	\$1,970.26	\$132.89

TEN-YEAR SUMMARY
UNIVERSITY OF MARYLAND
EXTENSION SERVICE

1914-1924

By THOMAS B. SYMONS, *Director*

With the passing of 1924 a decade of Extension work in Maryland has been concluded. The formative period has been passed and Extension work has attained in the State a well-recognized place among the agencies devoted to the advancement of agriculture and rural home life.

The passage of the Smith-Lever Act in 1914 inaugurated a movement founded on a new conception of service on the part of the Federal and State governments for the promotion of the agricultural industry. The establishment of the Extension Service to give reality to this conception was intended to bridge the existing gap between rural people and the State agricultural colleges, experiment stations and the United States Department of Agriculture, and to make available an easier and more practical source of useful information.

The law contemplated, however, a type of service with little precedent in human experience. It provided a new kind of service through an entirely new kind of organization. The first decade of Extension work, therefore, has been devoted to pioneering in a new field. It has established the fact that education can be successfully carried beyond the walls of the school and college. It has demonstrated to the rural people of the State that agricultural science and research have a real and practical value on the farm and in the home. Furthermore, it has greatly widened the influence and usefulness of the institutions which it represents. No small part of its achievement during the ten years of its history, therefore, has been the development of successful methods and the perfecting of a suitable organization for conducting Extension work.

The War Period

It may not be amiss to recall that the Extension Service has had for its period of development an era that profoundly affected the economic and social life of the Nation. The same year which witnessed the inauguration of Extension work in Maryland marked the outbreak of the World War. The influences that accompanied that conflict and followed it wrought many changes and necessitated many adjustments in the agriculture of the State. The Extension Service, of necessity,

accommodated its work to those influences. During this country's participation in the War, the problems of the farm were subordinated to the problems of the Nation and the sole effort of the Extension Service was devoted to the all important task of increasing the food supplies so vitally necessary for the maintenance of the civil population and the military forces.

Notwithstanding the disturbing effects of the World War, and more particularly of the period following it, the agriculture of the State has gone steadily forward during the ten years covering the history of the Extension Service. The Extension Service has had a part in that progress.

While it is difficult to form a true estimate of its work or to make an accurate appraisal of the results obtained, the Extension Service during the decade of its existence has been in close and intimate association with every phase of agricultural enterprise in the State, from the raising of the most insignificant crop to the marketing of the most important one. Its efforts and its work have ranged all the way from the solution of individual rural problems to help and assistance in the formulation of State programs and policies.

Organization of Farmers

One of the most valuable contributions of the Extension Service to the agricultural development of the State has been its continued effort to bring about organization and cooperation among farmers. Its help and assistance in the formation, the maintenance and the proper functioning of agricultural organizations have been important elements in the success of practically every agricultural organization and cooperative association in the State.

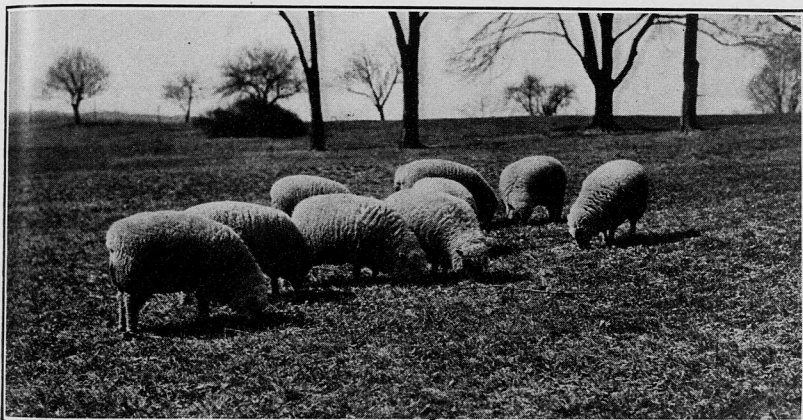
These organizations are today operating in every part of Maryland. Some of them are engaged in cooperative selling of farm products valued at millions of dollars annually; some in cooperative buying of commodities which each year total hundreds of thousands of dollars; and all of them are striving to place agriculture on a higher plane, increase its recognition and influence and develop its social life.

Crop and Livestock Work

In the production of farm crops, the Extension Service has directed its attention to the introduction of improved varieties, to the control of destructive insects and diseases, and to profitable cultural methods which had been tested and proven by the Experiment Station. Through its efforts, the use of pure-bred seed corn and higher yielding strains of wheat have become more general. It has encouraged the planting of al-

falfa, soybeans and other legume crops, both because of their value as soil improving agents and because of their desirable qualities as pasture and hay for live stock. Legume crops are now grown generally throughout Maryland and in larger volume than ever before and fill an important place in the agriculture of a State where dairying is so important an industry.

In the improvement of the dairy industry in the State, the Extension Service has rendered valuable assistance. Through its efforts, purebred dairy cattle have become more numerous, better feeding methods prevail and cows capable of increased milk production have been bred and introduced. Cow testing



A SMALL FLOCK OF CAREFULLY SELECTED INDIVIDUALS WILL GIVE THE BEGINNER AN IDEAL START IN THE SHEEP BUSINESS

associations in the important dairying counties of the State have given farmers the opportunity to discover the profit and loss on their own herds and to discard animals that have not paid their way. Purebred bulls and hundreds of milk cows have been selected by specialists and county agents for farmers who have desired to improve their herds. Through the agricultural boys' club work alone, the Extension Service has been instrumental in introducing several hundred purebred dairy calves to Maryland farms. The Extension Service has helped in the organization and has supported the three big dairy marketing associations in the State which are now doing an aggregate annual business for Maryland members well in excess of seven million dollars. Likewise it has been an important factor in getting farmers to have their herds tested for tuberculosis, thus serving both the farmer and the city consumer of milk.

In promoting the livestock industry throughout the State, the Extension Service has endeavored particularly to encourage the economical production of sheep and swine and beef cattle. It has assisted farmers materially in combatting parasitic pests and diseases to which sheep and swine are subject, and has aided especially in the campaign against hog cholera. Wherever possible it has promoted among farmers the cooperative sale of lambs and wool, and, at a time when wool was unmarketable at satisfactory prices, introduced a movement to have the wool manufactured into blankets thereby helping farmers secure a reasonable price for their product.

Home and Social Activities

In the farm home and in the social activities of the rural community, the Extension Service has performed services similar to those provided for agriculture. It has assisted women in the country to organize clubs and associations where home and community problems can be discussed and attacked through united efforts. It has constantly brought to the attention of rural women new and more efficient methods of household management, tested recipes for canning and preserving food products, time and money saving hints in home sewing, in making clothing and millinery, and plans for making home life in the country more attractive and pleasant.

In the work with the boys and girls of the farm, the Extension Service has had, perhaps, its most useful field. It has provided the boys with an opportunity to learn scientific agriculture and its practical application on the farm. It has provided the girls likewise with the opportunity to learn the theory of home economics through practical work in the home. It has reached thousands of boys and girls each year and by demonstrations, which they themselves have conducted, has pointed out to them the latent possibilities of agriculture and rural life.

Poultry, fruits and vegetables, soil improvement, drainage, the use of lime and fertilizers, the grading and packing of farm products, the production of canning crops, fairs and community shows, insect and disease control, have all presented continuous agricultural problems which the Extension Service has helped and is still helping to solve.

Cooperating Agencies

The Extension Service has not worked alone. Prior to its establishment, the State Agricultural College, the State Experiment Station and the United States Department of Agriculture had rendered services of untold value to the farmers of the State. Those services have been continued during the ten

years of Extension work. And while in some cases the fields of effort have been different, the aims have always been the same and the results obtained have been due to the harmonious cooperation of all forces.

Early Extension Work

Great value attaches to the miscellaneous demonstration work conducted in the State by various agencies of the State Agricultural College prior to the inauguration of the Extension Service. The earliest attempts to extend the usefulness of the college and the experiment station took the form of farmers' institutes. The first regular farmers' institute held under this name was conducted under the auspices of the Maryland Experiment Station and Brighton Grange during the winter of 1890.



ENLISTING THE ACTIVE INTEREST OF FARM BOYS

In 1894 a law was passed by the Maryland legislature providing for the holding of farmers' institutes in all the counties of the State and placing their direction under the State Agricultural College. Farmers' institutes were conducted in the State each year from that time until 1918 when all work of this character was merged with the work of the Extension Service.

Farmers' institutes, therefore, were the first means of carrying agricultural education to groups of rural people in the State. They were of immense value in acquainting people

with the development of agricultural science and resulted in the adoption of many improved methods of raising crops, in the development of new enterprises and the general improvement of rural life.

Prior to 1914 several of the departments of the State Agricultural College and the Experiment Station were conducting many forms of Extension and demonstration work. The Experiment Station, under the direction of Director H. J. Patterson, was making available to the people of the State the results of innumerable experiments that had been conducted with livestock and crops, and in the control of insect pests, plant diseases, etc.

Regular demonstration work looking to an improvement in the production of corn was begun in 1903 while demonstrations in methods of growing alfalfa were started in 1905. Demonstrations with wheat, winter oats and certain forage crops were commenced in 1910. Some substantial work also was being done in improving small fruit production and in assisting the dairy and poultry industries. A general historical statement by Dr. H. J. Patterson in the 14th annual report of the Experiment Station, 1902 and 1903, refers to many lines of work completed and established by the Experiment Station and their bearing upon the agricultural development of the State at that time.

Perhaps the most systematic effort to carry on Extension and demonstration work during this early period was made after the creation by the legislature of the State Horticultural Department in 1898. While the creation of this department was primarily due to the prevalence of the San Jose Scale in the orchards of the State, yet the small appropriation of \$8,000 which was made available, made it possible to supply additional information and to conduct numerous demonstrations in the control of insect pests and diseases which gave a wonderful impetus to the horticultural industry of the State. From 1903 to 1914 many pruning and spraying demonstrations were conducted regularly in the State each year. This work contributed much towards fostering the great fruit interests of the State.

During this same period, various instructors in the college and specialists in the Experiment Station rendered fine service to the farmers of the State by addressing farmers' meetings, by personal visits to farmers in all parts of the State, by assisting in organization work, and by conducting short courses and taking active part in numerous other enterprises designed to promote agricultural welfare.

During the fall of 1911 the United States Department of Agriculture inaugurated Extension Work in this State through county demonstration agents appointed in a limited number of

counties. This was the first step in the development of the county agent system that previously had been inaugurated in the Southern states. It was made possible through special funds which permitted the United States Department of Agriculture to extend the work to Maryland in order to demonstrate the value of having special representatives in counties to render assistance to farmers. This was really the beginning of the county agent system in Maryland. It was, of course, directly under the supervision of the Federal Department, although representatives of the State Agricultural College co-operated in the conduct of the work.

The work thus begun, not only included work for farmers, but initiated the first definite work for rural women and girls in the State. Dr. Augustus Stabler was the first district agent appointed by the government to supervise the county agents under government direction and the results obtained by the agents in their respective territories were most creditable considering the handicaps under which they worked. Nearly all of the agents employed in this early effort to test the value of Extension work who were in service when the Smith-Lever Act was passed were retained and included in the organization of the Extension Service. Following are the agents appointed by the department of Agriculture prior to the organization of the Extension Service in 1914:

S. S. Stabler, appointed November 1, 1911; resigned December 15, 1913; Charles County, west of Pope's Creek, and Prince George's County.

G. C. D. Townshend, appointed February 16, 1914; resigned March 31, 1915; Prince George's County.

Mr. W. R. Linthicum, appointed March 23, 1914; resigned July 31, 1915; Charles County.

John H. Drury, appointed November 1, 1911; Calvert and Anne Arundel. Appointed October 1, 1913; resigned December 31, 1923; Calvert alone.

G. Frank Wathen, appointed November 1, 1911; St. Mary's County.

Miss Mary A. Burnite, State Agent in Charge of Girls' Club Work.

Wilbur Dorsey, appointed November 1, 1911; resigned January 31, 1912.

Mrs. M. L. Dukes, Girls' Club Agent; appointed February 21, 1914; resigned September 30, 1914; Caroline County.

J. L. Graybill, appointed July 1, 1913; resigned October 31, 1914; Baltimore County.

Miss May Hamblin, appointed February 11, 1914; resigned January 16, 1915.

Charles A. Hodges, appointed February 16, 1912; resigned November 16, 1914; Anne Arundel and Prince George's Counties; October 1, 1913, took all of Anne Arundel County.

Ida B. Knighton, appointed March 25, 1914; resigned December 31, 1914; Girls' Work in Anne Arundel.

H. S. Koehler, appointed February 1, 1914; resigned January 31, 1916; Queen Anne's County.

Gilbert B. Porter, appointed April 1, 1914; resigned November 30, 1917; Dorchester County.

E. C. Remsburg, appointed May 1, 1914; resigned December 31, 1915; Frederick County.

Mrs. Ella P. Robinson, appointed April 4, 1914; resigned January 16, 1915; Queen Anne's County; Girls' Club Agent.

Oliver Smith, appointed March 1, 1914; resigned May 31, 1914.

Augustus Stabler, appointed October 1, 1911; resigned December 31, 1914; District Agent.

Miss M. Lillian Mattingly, appointed March 1, 1914; resigned July 31, 1918; St. Mary's County.

Much could be written concerning the development of various activities in rural Maryland during this early period. Too much credit cannot be given to the College and Experiment Station, the farmers' institutes, Governmental agencies, and all other forces for their accomplishments prior to the inauguration of the Extension Service in Maryland. When one considers the limited finances, the inadequate facilities and the small available man-power, the results are all the more remarkable.

The Smith-Lever Act

The passage of the Smith-Lever Act by Congress, May 8, 1914, provided the foundation stone for the erection of the Extension Service in Maryland. This act provided for the conduct of cooperative Extension Work in agriculture and home economics by the land grant institutions and the United States Department of Agriculture. It provided an initial appropriation to each State of \$10,000 annually with a gradual increase in Federal allotments based upon the rural population of the State provided the State Legislature would make an equal appropriation, and provided further that all plans for the work would be approved by the Secretary of Agriculture.

Governor P. L. Goldsborough on the part of the State of Maryland, legally accepted the benefits of this act June 4, 1914, and designated the Maryland Agricultural College, now the University of Maryland, as the proper institution to administer the funds. The legislature of 1916 passed an enabling act providing for the formal acceptance of all provisions of the Federal act on the part of the State. On July 1, 1914, the Extension Service was created by the president and the Board of Trustees of the Maryland Agricultural College as a distinct division of the institution. The office of Director of Extension also was created as called for in the memorandum of understanding entered into between the president of the college and the secretary of agriculture and the present director was selected for the position. The memorandum of understanding

between the cooperative agencies was approved July 15, 1914, and is printed in the first annual report of the service.

The increased Federal appropriations for the work, provided by the Smith-Lever Act, reached their maximum in 1923. During the period of the World War, however, supplementary appropriations were made available by congress and aided the Extension forces in the state to meet the special demands made upon them.

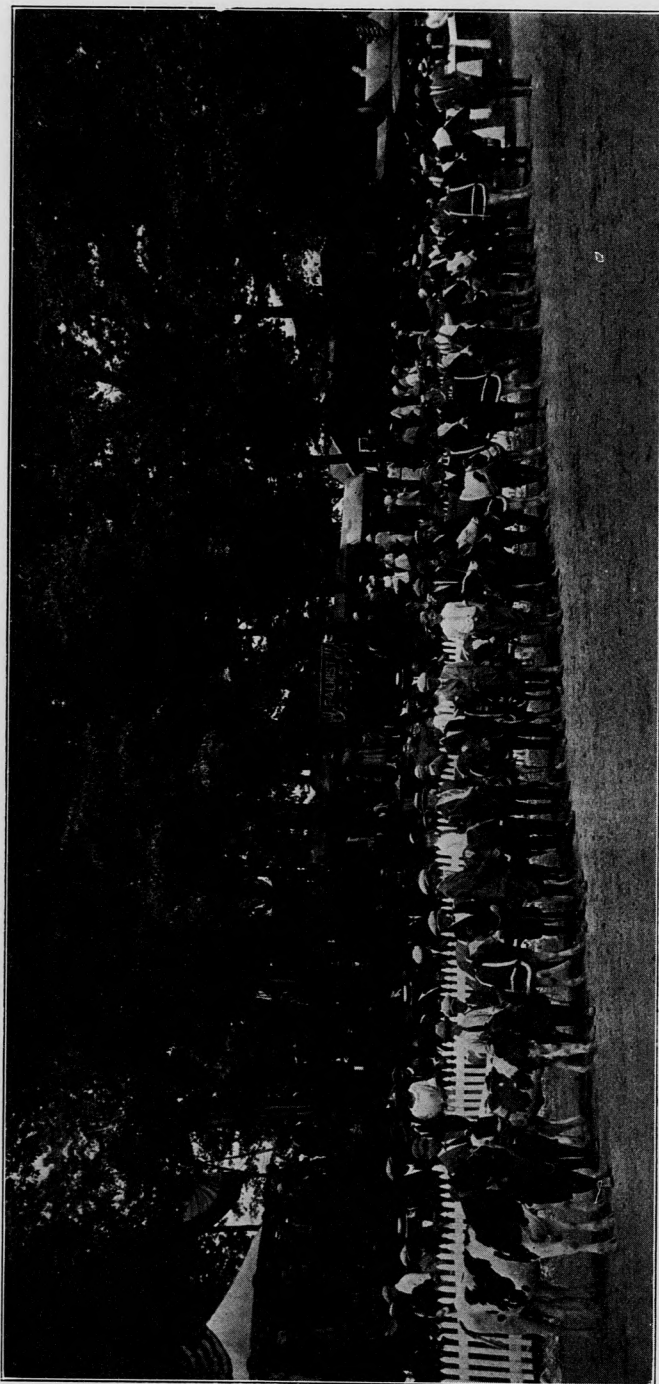
Extension Work Well Received

In no other state of the Union has the system of Extension education been so well received, so thoroughly established and so reasonably supported as in Maryland. Moreover in no other state have the people shown a greater appreciation of the efforts of Extension specialists and agents than in Maryland. All of these factors have contributed to the success of the work in the state and have been in evidence from the outset.

As has been mentioned, the county agent system in Maryland had its beginning in the work instituted by the United States Department of Agriculture. Consequently Dr. Augustus Stabler continued as State Agent until December, 1914. Upon his resignation, Mr. G. H. Alford was appointed as State Agent and aided in the development of the work until February 1917 when he resigned and the position of Assistant Director was created with the appointment of Dr. F. B. Bomberger as Assistant Director and Specialist in Marketing in June 1917.

The policy of the Extension Service from the beginning was to continue this system and to expand it as rapidly as the necessary funds became available. Twelve county and six part-time home demonstration agents served during the first year. With the limited funds available at that time, it was necessary to depend largely upon appropriations from the respective counties to maintain the agents. A total of \$6,350 was contributed to the support of the work during this first year by the counties, showing their appreciation of the service and their interest in its development.

The following year county agents were placed in six more counties of the State and home demonstration agents were secured for four additional counties. The state legislature of 1916 made available an appropriation of \$23,000 for the support of county agent work in the State. This appropriation together with the Federal funds available made it possible to maintain a county agent in every county of the State. Early in 1917, all the necessary appointments had been made and since then no county has been without a county agent for any considerable length of time.



A "COMPANY FRONT" OF MONTGOMERY COUNTY CLUB MEMBERS AND THEIR CALVES

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Practically the same policy has been pursued in regard to home demonstration agents and while funds have not been available to maintain home demonstration agents in all of the counties of the State, the majority have had this service since 1917. There are now home demonstration agents in 19 of the 23 counties.

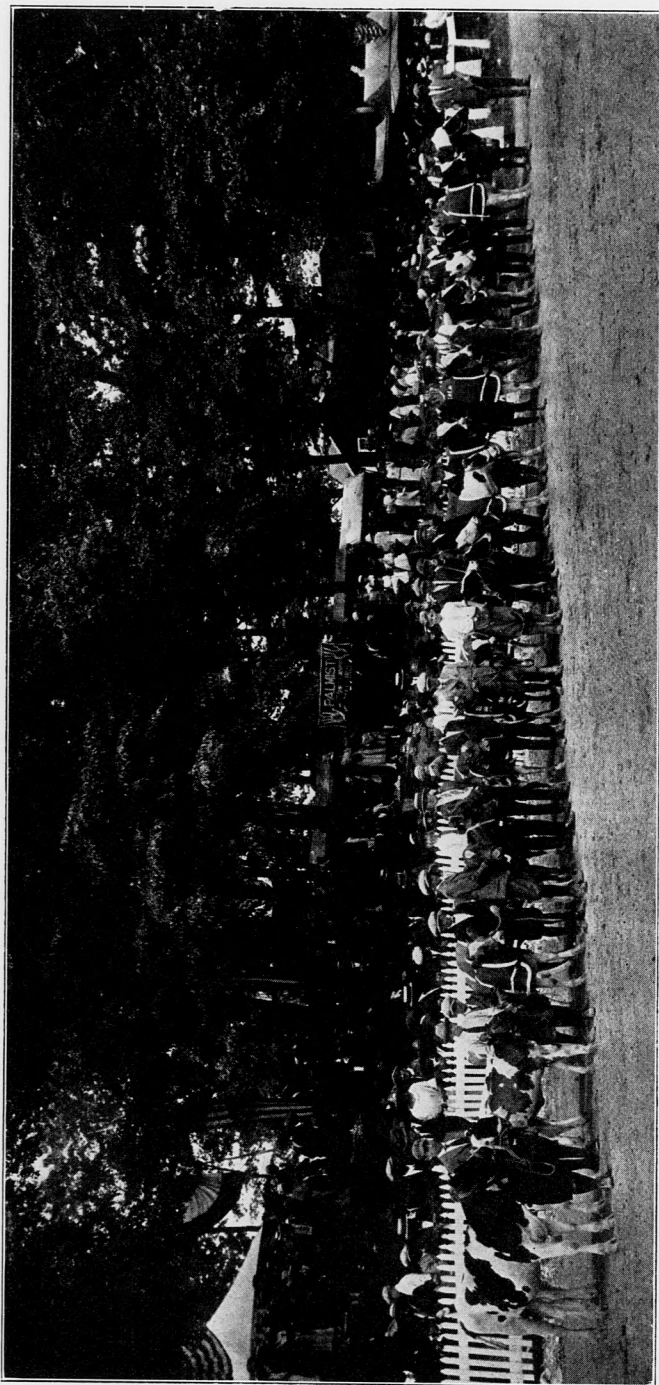
From the beginning, the Extension Service in Maryland has followed the policy of employing as many specialists to devote their entire time to Extension Work as funds would permit. This policy was adopted in preference to one which would have supplied, perhaps, specialists in more lines of work who would have been able to devote but part time to the task of developing their special lines of endeavor. With the limited funds with which the Extension Service was supplied during the first few years, it was necessary to select specialists for what were considered to be the more important fields of Extension Work. The number of specialists devoting their entire time to Extension activities has been increased from time to time as funds have become available but at no time has the number of specialists been increased at the expense of the county and home demonstration forces.

County Agents Supported by Public Funds

Since its establishment, the Extension Service in Maryland has been supported entirely by public funds. This policy was early adopted as the one best calculated to serve the aims of Extension Work and to produce the most satisfactory results. With the definite appropriation by the state in 1916 of \$23,000 which in 1919 was increased to \$48,000 for the purpose of maintaining a county agent in all counties desiring to cooperate, the policy of financing Extension Work solely through public funds was made possible. Additional appropriations have, of course, been received from the State from time to time to permit the conservative growth of the work. County funds have likewise been appropriated in many cases where it was evident that the people demanded an improved service. The present scope of the Extension Work in many counties of the State would be impossible but for the generous appropriations by county commissioners who have had the opportunity to see the work at close range and understand its value in their respective counties. All funds, however, whether from Federal, State or County sources, employed in Extension Work are from public sources and Maryland is one of the few states fortunate enough to have its Extension work so organized.

County Headquarters

The offices of the county agents are usually at the county seat and generally in the county Court House. The counties have been liberal in furnishing suitable quarters for the Ex-



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tension agents. Moreover, clerks have been provided for the agents since 1917. The early policy of having the agents furnish their own transportation in way of automobiles with definite monthly expense accounts has proven to be most satisfactory. These facilities have enabled the men and women agents to render the greatest possible service to their communities.

Office Headquarters

The offices of the Service were first located in Science Hall supplemented by additional space in the horticultural building adjoining the green houses. In 1916 we were forced to lease a building then available which was located about one mile from the College across the Baltimore and Ohio Railroad. With the completion of the new agricultural building in 1918 the Service offices were established comfortably upon the first floor.

From the beginning it has been the policy of the Service, in the interest of economy and efficiency, to group the clerical work so that a stenographer and clerk could serve one or more specialists and administrative officers. Miss Anna E. McCarthy served as the first chief clerk and accountant of the Service, resigning in October, 1918. She was succeeded temporarily by Miss Irene Snyder, who later devoted her whole time to secretarial work. Miss K. G. Connolly was appointed chief clerk of the Service July 15, 1920; later she was made administrative assistant.

The work of the office has been dispatched by a competent and earnest group of young women, making it possible for a large amount of work to be accomplished with a minimum force. The promptness with which the administrative work is conducted and the keeping of accounts have been matters of pride to all concerned.

The Service also has employed a loyal group of clerks who are assisting the Extension Agents in the field.

Emergency War Work.

With the entry of the United States into the World War, the value of Extension Work in Maryland was immediately apparent. At no previous time in recent years had the far-reaching importance of an adequate agriculture been so indelibly impressed upon the people of the country. The demand for increased food supplies was immediate and imperative and it was indeed fortunate that the Extension Service was ready with an organization capable of stimulating and encouraging the production and conservation of agricultural products in the quickest and most effective manner.

It was, of course, but natural that the Extension Service should exert its utmost efforts during this period and that it should cooperate effectively with such emergency organizations as the United States Food Administration and the National Council of Defense. With active representatives in each county of the State, the Extension Service was able to render most effective service in its own field and to lend valuable assistance to the efforts of these other war-time organizations.

A vast amount of additional work was imposed upon the Extension organization and the undertaking of many emergency measures called for additions to the staff of workers. Assistant county agents were appointed in a number of counties. The home garden projects, undertaken with a view to encouraging food production in cities and towns, necessitated specialists capable of supervising this work. Community kitchens to assist in the conservation of food products required competent helpers for the successful prosecution of this work. Special agents likewise were appointed to work among the rural negro population.

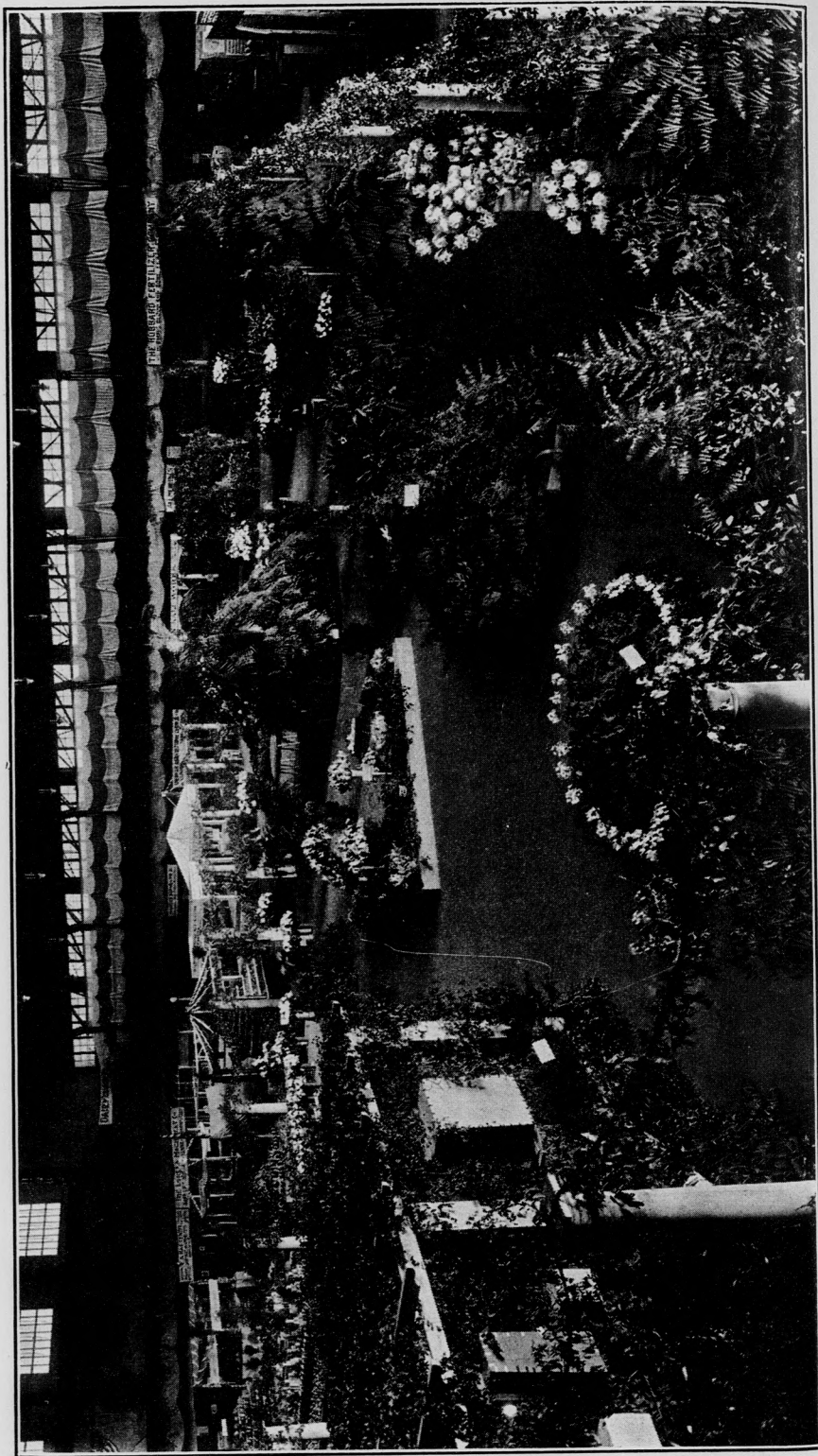
The Extension Service, through its county and home demonstration agents, was particularly effective in assisting with the distribution of emergency labor available for farm work. It assisted in placing such emergency labor as that obtained through the Boys' Working Reserve and the temporary release of industrial workers. It likewise found farm work for the conscientious objectors from Camp Meade.

Other work during this period which the Extension Service prosecuted or assisted in conducting included the operation of State-owned tractors, the inspection of threshing machines, the distribution of farm seeds at cost, special seed corn testing campaigns, wheat production contests, and special insect and disease control measures.

Maryland State Grange

Numerous rural organizations were active in Maryland long before the establishment of the Extension Service. Some of them had unbroken records dating back many scores of years and all of them had performed a useful service in spreading agricultural knowledge. Of these the Grange was the most influential.

The history of the Maryland Grange began in 1872 with the organization of several locals. By the end of 1873 half a dozen locals had been established and had paved the way for the organization of the Maryland State Grange in January 1874. The early history of the Grange was marked by many noteworthy achievements. Among other things it developed a very



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With the exception of the Grange, there was no other farm organization in Maryland composed of county and State units at the time the Extension Service was organized. There were, however, four important State-wide organizations that for a number of years had been exerting considerable influence on the agriculture of Maryland. The Maryland State Horticultural Society was the oldest, largest and most active of these. It came into existence in January 1898 and from the outset demonstrated its value to the fruit growers of the State. It was essentially an educational organization and devoted its efforts largely to the advancement of the industry it represented. Soon after its organization, the Maryland State Horticultural Society instituted the annual agricultural exhibits in Baltimore which until their discontinuance during the war were annual features of note in the State that quickly attracted outside attention as well.

Several years after its organization, the Maryland State Horticultural Society was successful in securing from the State legislature an annual appropriation of \$1,000. Later this was increased to a total of \$5,000.

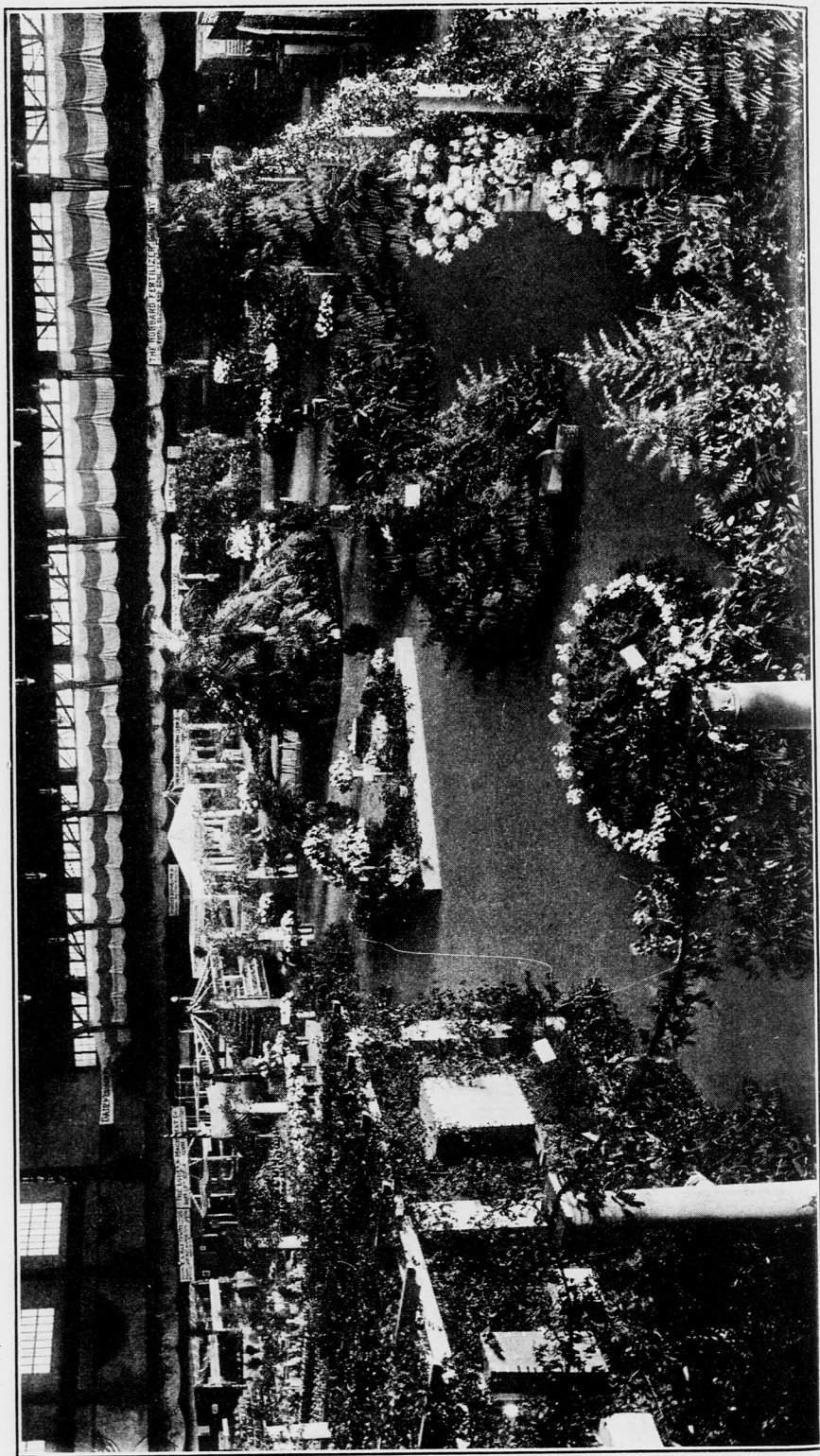
Maryland Week Exhibition

Following the organization of the Maryland State Horticultural Society, the Maryland State Dairymen's Association, the Beekeepers' Association and the Crop Improvement Association were organized in turn. In their respective fields, these organizations undertook programs similar to the one being followed by the Horticultural Society and joined with the latter organization in making a success of "Maryland Week" and the agricultural exhibit at the Fifth Regiment Armory, Baltimore.

The next step in organizing the agricultural industry of the State consisted in the consolidation of existing associations into a State organization. Thus was formed the Maryland Agricultural Society. In 1916 an act of the legislature incorporated the Maryland Agricultural Society and made available for the promotion of its work, the annual sum of \$5,000 which previously had been appropriated to the State Horticultural Society.

County Federations

With the organization of the Extension Service and the establishment of the Maryland Agricultural Society, a considerable impetus was given to the organization movement in the State. The development, however, was interrupted during



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the next few years by the entry of the United States into the World War. By 1919 there were many organizations of one kind or another serving the interest of rural people in their respective counties. Federation of these organizations into county units with representation in the Maryland Agricultural Society was next undertaken and by the close of 1921 all the counties of the State with the exception of Calvert and Garrett had county federations affiliated with the Maryland Agricultural Society. These federations exerted considerable influence in their respective counties in matters relating to agriculture, home demonstration work, roads, schools, health, recreation, marketing of farm products, purchase of farm supplies, transportation, telephone rates, legislation pertaining to agriculture and community welfare, etc.

In 1920 the Maryland Agricultural Society voted to affiliate with the American Farm Bureau Federation, representatives having attended the first organization meeting in Chicago. At this time Montgomery County was the only county in the State with an organization under the Farm Bureau name. In 1922, however, Washington County led off with the formation of a county Farm Bureau, and was soon followed by Frederick, Anne Arundel and Howard.

Maryland Agricultural Society—Maryland Farm Bureau

At the annual meeting of the Maryland Agricultural Society in Frederick in January, 1923, re-organization of the Maryland Agricultural Society was effected and provision was made for a union of all its forces with the Farm Bureau under the name of the Maryland Agricultural Society—The Maryland Farm Bureau Federation. This action was accomplished without disturbing any of the existing farm organizations and gave the State the largest and most compact organization of farmers in its history. There followed the organization of Farm Bureaus in other counties of the State and at the close of 1924 every county with the exception of Garrett, Allegany, Cecil, Wicomico and Somerset was organized under the Farm Bureau plan.

Under the plan of consolidation, affiliated organizations were given representation on the Board of Directors of the Maryland Agricultural Society—Maryland Farm Bureau Federation and annual dues of \$20 a year were fixed as the membership fees for such organizations. At the same time membership fees in local Farm Bureaus were set at \$10 a year, thus making available very substantial funds for the work of State, county and local organizations.

With the discontinuance in 1917 of the Maryland Week Exhibition due to use of the 5th Regiment Armory for war purposes, the Maryland Agricultural Society decided to devote a

part of its available funds to the promotion of community agricultural shows and exhibits. The Extension Service naturally encouraged such community exhibits and during the succeeding years many of them were held throughout the State, doing much to advance the cause of agriculture. Community shows have become valuable institutions, and one or more of them are held in practically every county each year.

Two other developments in the State must be mentioned under the head of organization. The first of these is the organization of county Farm Loan Associations and the establishment of the Federal Land Bank in Baltimore. Following the passage of the law creating the Federal Land Banks and providing for the organization of Farm Loan Associations, efforts were made to acquaint farmers of Maryland with the provisions of the act and to establish the agencies necessary to the proper utilization of the credit facilities provided. Farm Loan Associations were formed during 1918 and 1919, the close of the latter year witnessing completed associations in all but four counties of the State.

The other important development in organization in the State concerns the advance made in interesting rural women in united efforts. This organization effort had its start in local women's clubs which were formed to promote the interests of the home and community. The number of these clubs has grown steadily throughout the State until there are now 243 of them. In ten counties federations of these clubs have been formed.

Cooperation in Programs of Work

The policy of the Extension Service has been to cooperate and work with all farm organizations. Every effort has been made to develop the grange work where it has been acceptable to the local people. Obviously, in counties where the Farm Bureau has developed and emphasized the business end of farming, the Grange has not undertaken similar work and consequently has not developed along this line. The Grange, however, continues to occupy a useful place in the field of organized agriculture of the State. The Extension Service has enjoyed splendid cooperation from these organizations as well as various farmers' clubs that have existed for many years and one or two locals of the farmers' Union which were organized in Cecil County four years ago.

Splendid harmony has existed between the farm organizations of this State up to this time and that has been one of the important contributing forces towards the promotion of Extension Service Work as well as the agricultural interests generally. It is the policy of the Service to assist in develop-

ing programs of work for these organizations and to work hand in hand in their prosecution. Naturally the Farm Bureau has been more active of recent years on account of the development of cooperative enterprises.

Cooperative Buying and Selling Organizations

Cooperative buying and selling organizations have developed steadily and in most cases along conservative lines with the result that there is now not a single county in the State with-



A FEEDING AND MARKET DEMONSTRATION

out some form of cooperative buying and selling organization in operation. Considerable cooperative buying and selling had been done in the State before the creation of the Extension Service but at the time of its organization there were no important organizations of this character in the State. The present extent and usefulness of these organizations have developed since that time.

Re-organization of the Maryland State Dairymen's Association in 1918 was the first step in the development of an extensive cooperative selling organization in the State. With the rapid increase in the cost of producing milk, due to war conditions, there was a strong demand from dairymen for some method of selling that would improve conditions on the Baltimore market. Accordingly, the Maryland State Dairymen's Association, which previously had been an educational organization purely, was re-organized as a cooperative selling agency for its members. Starting with a membership of approximately a thousand members, the Maryland State Dairymen's Association has grown to an organization of approximately 3,500 members, selling around eighteen million gallons of milk annually, valued at close to six and a half million dollars. Everything was done by the members of the Extension Service, cooperating with other agencies and the dairymen, in bringing about this desired end.

Since then two other important cooperative milk selling organizations have developed in the State. They are the Maryland and Virginia Milk Producers' Association and the Interstate Milk Producers' Association. While neither of these organizations is confined exclusively to Maryland territory, the number of Maryland members represented in both of them has grown steadily during recent years so that by far the greatest part of the milk produced in the State is now sold through cooperative agencies.

A somewhat similar re-organization of tobacco growers of the State was effected in 1919 and has succeeded in accomplishing for the tobacco growing industry much the same results as have been obtained by the dairymen. A loosely knit organization that had existed among tobacco growers was welded into a sound cooperative enterprise, and while the organization has encountered many difficulties in the course of its development, it is now handling at satisfactory prices over 60 per cent of the tobacco produced in the State and is growing steadily in importance and influence.

In the field of cooperative buying much progress has been made. Many county units have been formed to make cooperative purchases for members and have operated successfully year after year. A larger undertaking of this kind was attempted in October, 1921, with the organization of the Agricultural Corporation of Maryland. While this organization encountered many obstacles at the outset, it has made rapid progress in the past two years and did a gross business of more than a million dollars in 1924.

It is impossible to give a record of all the minor cooperative enterprises that have been developed in the State. Many of

them are purely local in character, but are nevertheless demonstrating effectively the advantages of organization and cooperation, and are paving the way for progress along these lines.

HOME DEMONSTRATION WORK

As mentioned in the introduction, five or six women were employed on a part-year basis by the U. S. Department of Agriculture to conduct girls' canning club work prior to the establishment of the Extension Service and the passage of the Smith-Lever Bill. The home demonstration phase of Extension Work was formally begun with the appointment of Miss Katharine Prichett as State Home Demonstration Agent, May 1, 1915.

With the limited funds available it was necessary to continue agents in the counties on a part-time basis. During 1915 agents worked in six counties. Records show that 607 girls and no women were enrolled in club work and 260 meetings were held in the interest of girls' work. As with the boys, 14 prize-winning girls took part in a trip to Baltimore that was promoted by the "Baltimore Sun."

In 1916 the value and importance of the work was better understood and rural women became more and more interested in the girls' work and made calls upon the agents themselves. During this year several County School Boards, Commissioners and other agencies made small appropriations for the support of county work. Home Demonstration Agents were employed for longer periods of time in 1916 and the number of counties organized increased from six to ten.

Girls' Work Grows

Girls' Club Work made a marked growth the second year. A total of 1472 girls were enrolled to carry on different club activities. The program that year included poultry and bread making. Few girls had flocks of their own, but credit was given for caring for their mothers' flocks. Steps were taken to encourage parents to open their homes for Girls' Club meetings in order that the girls could use the kitchens for canning and bread demonstrations.

Requests from women for the first time asking for demonstrations in home economics were received. These requests were mostly taken care of through the holding of nine movable schools, varying in length from two to four days. At the end of the year 373 women were organized in clubs for the purpose of receiving help from the Extension Service. The first short course for Home Demonstration Agents was held at College Park from May 22 to 27, inclusive, 1916.

On June 1, 1917, the State Home Demonstration Agent resigned and the Assistant, Miss V. M. Kellar, was appointed State Agent. She still remains in the service in the position of State Home Demonstration Agent.



CLUB GIRLS MAKING A FIRELESS COOKER

The War Period

Due to the World War, emergency funds were appropriated for Extension Work. Extra Agents were employed to help with the work of production and consumption. By July 1, 1917, forty women were doing Home Demonstration Work in Maryland. Every county, with the exception of one, had a Home Demonstration Agent. The counties not appropriating funds for the work were given temporary emergency agents whose salaries and expenses were taken care of from the emergency fund. The one county not supplied with an agent had special work given the people from headquarters.

In four counties—Washington, Frederick, Harford and Caroline—the work grew to such an extent that it was necessary to place part-time assistants with the regular agents.

Five colored workers were employed to work among the colored people—one in Baltimore City, three in Southern Maryland and one on the Eastern Shore.

Through the emergency fund six workers were employed to look after the city work—four in Baltimore City, one in Cumberland and one in Hagerstown. Community kitchens were established by these agents and most of their work was centered at these kitchens, teaching food preservation, the making of war breads, etc. Three part-time assistants were employed to work at the State Office.

Counties Make Appropriations

At the end of 1917 ten counties were making appropriations for work on a twelve months basis and twelve were making small appropriations plus the emergency fund for part-time workers.

Twenty club girls received in 1917 State recognition for war gardens and canning work. The prize winning girls attended the first Junior Short Course held at the University in June, 1918.

The work of 1918 was a continuation of the war program of 1917. It was the second year of the war and greater stress was placed on the program of production and consumption. Thousands of containers of fruits and vegetables were canned in the home kitchens, under the guidance of the Home Demonstration Agents. The community kitchens in Baltimore, Cumberland and Hagerstown were open as centers where women could do canning or drying and receive instruction from the Home Demonstration Agents.

Women Organized

Very little definite organization work was done this year among women. The Home Demonstration Agent worked with all organizations as well as unorganized groups when called upon for help. The work of the Home Demonstration Department during 1917 and 1918 was closely correlated with the work of the Food Administration and Council of Defense, which were national emergency organizations carrying on programs of work similar to that of the Extension Service, but depending on the Extension Service for the real work done.

The first Junior Short Course was held at the University in June, 1918, for the boys and girls winning first and second places in State projects in 1917.

The first district agents and specialists were appointed to help at the State office in 1918. The State was divided into three geographical districts—Western Maryland, Southern Maryland and the Eastern Shore. Each District Agent was assigned to a district, helping County Home Demonstration

Agents in respective districts. Miss Ola Day, Miss Margaret Smith and Miss Mabel L. Stephenson were appointed to these positions.

The year 1919 marked a very important epoch in the life of Home Demonstration Work. Numbers of people who were not familiar with the scope of Home Demonstration Work before the war soon came to recognize the purpose and value of the organization. When temporary organizations discontinued their activities they left a large field open for Home Demonstration Work.

Stronger Organizations Needed

When the change was made from a war-time to a peacetime program it was necessary to do a great amount of constructive work which could only be done by definite plans for organization. To accomplish this a careful and thorough survey was made of prevailing conditions, and programs made to suit the present needs. The first community organizations were perfected in 1919. The purpose of the organization was to promote interest in projects pointing toward the welfare of the home, the community, the county, and the State. Community picnics and community shows were encouraged to further interest in the community organizations. The interest manifested in both these activities demonstrated the real need for and value of community organizations.

Beginning with July 1, 1919, only one city worker was retained in Baltimore City and, due to the discontinuance of the emergency funds, only one colored worker remained in the service.

In April, 1919, Miss Adice S. Jones was appointed Assistant Girls' Club Agent to assist with girls' work.

In 1920 the results of community organizations became apparent. Through these organizations definite help had been given and results had been obtained. The projects in clothing, food and household management, with their allied subjects, were started in 1919 and became a recognized part of the Extension program.

Due to lack of funds, the one remaining City Home Demonstration Agent was discontinued in 1920.

County Short Courses

Women's and girls' clubs this year were better organized. The first County Short Courses in the State for women were held in Carroll and Caroline Counties. The first Federation of Home-makers Clubs was organized in October in Carroll County.

The report for 1921 shows that the Home Demonstration Work was no longer in its infancy. The work developed by degrees until the people as a whole recognized its value not only to the home, but to the community, the county, and the State.

The appreciation of the growth was shown in different ways such as increased appropriations by county commissioners, by local contributions for other activities like girls' camps, short courses, etc. There was a marked increase in the enrollment in both girls' and women's clubs. A greater interest was taken in county organizations, fairs, community shows, etc. Requests coming to headquarters were for definite help, demonstrating that people knew what kind of information they wanted.

In June, 1921, Miss Bertha L. Knight, as specialist in clothing, and Mrs. Marion C. Bell, as specialist in Household management, were appointed to do the work of specialists and district agents, the three district agents that were appointed in 1918 having resigned.

With the help of these two specialists very definite programs in the two projects were planned with the Home Demonstration Agents to meet the needs of the different counties, and some very satisfactory results were obtained.

Value of Work Apparent

With definite programs of work, both women's and girls' club organizations grew in number and enrollment and both groups made good reports of home demonstrations and completed projects. Also both groups reported the money value on work done and value of the saving in clothing and millinery to be \$10,386.84; \$2,266.84 more than the 16 counties appropriated toward the work in 1920.

Two more counties in 1921 organized county federations of rural women's clubs. The total number of women's clubs for 1921 was 88 with an enrollment of 3,075 and the number of girls' clubs was 225 with an enrollment of 2,814. Definite local leadership work in both women's and girls' clubs was started in 1921.

The program of work for 1922 was to do definite project work in a definite way, and obtain definite results. Such programs in food, clothing, household management, poultry, landscape gardening and income earning features were welcomed in most of the rural women's clubs. Work took on a new impetus when goals were to be reached and results obtained—programs were made to fit community needs, local leaders assumed responsibility in helping to carry out these programs and to get reports for home demonstrators.

Women's clubs grew in number from 88 to 110 and five more counties organized county federations of rural women's clubs. A larger attendance at the Junior Short Course at the College emphasized the growth and interest in girls' club work. The training of demonstration teams in girls' work and the giving of public demonstrations proved to be a popular way of interesting the public in the value of girls' work.

Community shows demonstrated the educational value of Extension Work in better and standardized exhibits.

Local Leaders Trained

The first training schools for local leaders both in women's and girls' work were held in 1922. Women's clubs through their county federations made reports of club activities and accomplishments.

Eighteen counties in 1922 made liberal appropriations for full time Home Demonstration Work. Miss Dorothy Emerson was appointed Girls' Club Agent in 1923, and Miss Jessie Campbell was appointed Nutrition Specialist and District Agent in 1924.

The efforts to increase the efficiency of Home Demonstration Work in 1923 were placed upon improving and enlarging present methods used in carrying on the work. A program based on community needs is the program that is most effective in securing results. Such a program makes the community the unit of activity. To develop a community workable program it was necessary to have projects, to have a goal and to strive to get satisfactory results so that the public could be acquainted with the work accomplished and know what was being done with public funds.

Many very important things took place in 1923 to mark new milestones in the development of Home Demonstration Work.

1. The most outstanding of these was the first Short Course held for rural women at the University, June 18 to 22, inclusive. Two hundred and forty-seven busy women registered for this course. The appreciation and interest demonstrated at this short course convinced the University authorities that the women of the State were ready for such a course. A resolution endorsing the Short Course and asking that it become an annual affair was unanimously passed by the women attending the course.

2. The first meeting for women to be held in conjunction with the State Agricultural Society was held in Frederick, January 11. At least 600 women attended this meeting.

3. Home Demonstration Work received the support and co-operation of the State Federation of Women's Clubs.

4. The State Fair Association gave more space for the placing of exhibits and demonstrations than in previous years.

5. One hundred and twenty-nine local leaders in girls' and women's work submitted reports to Home Demonstration Agents.

6. Enrollment in girls' and women's work increased.

7. Counties increased their appropriations for the support of the work.

8. A greater appreciation of the financial value of Home Demonstration Work is shown for 1923 by figures submitted by club women, showing big savings on the clothing and poultry projects.

The Home Demonstration Work done and the results accomplished in 1924 demonstrated the value of the work and showed the appreciation in which it is held.

All rural organizations are now an active piece of machinery through which the Extension Work functions.

Rural women's clubs have increased in number to 343 with an enrollment of 6,030. Eighty-five per cent of these women are home demonstrators putting into practice in the homes of Maryland the help given by the Home Demonstration Department.

Three thousand one hundred and twenty-four girls are enrolled in some phase of club work. Nine hundred and ninety-four local leaders are assisting the Home Demonstration Agents in both women's and girls' work.

Miscellaneous programs have been replaced by long-time programs in clothing, nutrition, and household management.

The clothing project in 1924 saved the home-makers of Maryland \$41,755.15.

In addition to 19 counties making appropriations for Home Demonstration Work in 1924, one county (Baltimore) made an appropriation for a part-time assistant.

The future growth of Home Demonstration Work depends on the appreciation and value of the work in the minds of the general public and upon the services of Extension workers who have a true vision of the needs of the rural home.

Progress has been particularly marked during the past three years and some developments that have taken place in that period are shown in the following summary:

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PROGRESS MADE IN ORGANIZATIONS AND CLUB ACTIVITIES FOR THE PAST THREE YEARS, 1922, 1923, 1924

	1922	1923	1924
Number women's clubs.....	110	149	243
Total enrollment.....	3,504	4,592	6,030
Number girls' clubs.....	206	193	233
Total enrollment.....	2,710	2,612	3,124
Number of county federations of rural women.....	7	8	10
Number county federations of girls' clubs.....	4	6	4
Number clothing demonstrations given.....	75	283	1,064
Number garments made.....		1,561	14,434
Value of garments made.....		*\$5,925.99	\$24,193.40
Number millinery demonstrations given.....	97	210	240
Number hats made.....	739	1,245	3,325
Value of saving from millinery demonstrations.....	\$2,195.00	\$5,498.00	\$17,661.75
Number local leaders in clothing.....	44	203	380
Number local leaders in millinery.....		132	247
Number local leaders in nutrition.....	28	37	63
Number local leaders in household management.....	17	60	165
Local leaders in girls' club work.....	40	56	139
Amount of money earned by club girls in various projects.....			\$2,241.52
Total number local leaders in girls' and women's work.....			994

* Including all phases of clothing project, except millinery.

BOYS' CLUB WORK

Few other lines of work in which the Extension Service has engaged since its inauguration have had a more appealing interest throughout the State and have brought more enduring results than the boys' club work. As with many of the other activities undertaken by the Extension Service, it is hard to measure the results of boys' club work in definite facts and figures.

It can, of course, be shown that at the close of the year 1924, club boys in Maryland owned 370 purebred dairy animals valued at \$64,745; 1,788 purebred swine, valued at \$39,987; 7,915 purebred fowls, valued at \$19,323; and produced in the same year 11,248 bushels of potatoes and 10,533 bushels of corn.

The figures showing the number of purebred animals owned by club boys give some indication of what club work has meant in increasing interest in purebred livestock and in establishing sources of good animals in many sections of the State. They are, however, entirely inadequate to tell the story of what has been accomplished in the promotion of better feeding methods, better management and a better knowledge



A MONTGOMERY COUNTY BOY OWNS THIS GRAND CHAMPION HOLSTEIN HEIFER

of economical production on the farms of the State through club work. Similarly the figures showing the number of bushels of corn and potatoes produced by club boys fail to show the influence that these demonstrations have had in improving crop production methods in the communities where they have been conducted since the organization of the Extension Service.

It is also apparent that no figures can hope to convey any idea of the fine results which club work has accomplished in giving farm boys a true insight of the possibilities of agriculture and in fitting them adequately for places of responsibility and leadership.

Club work, under direction of the Extension Service, had its beginning in 1915 with the appointment of Mr. Reuben Brigham as State Agent. Prior to this time, some work had been done in the State by representatives of the Maryland Agricultural College, chiefly in the organization of corn and potato clubs which were designed to demonstrate approved methods of production for these two crops.

From the outset, boys' clubs work won the interest and cooperation of school teachers, county school superintendents and business interests, the latter appropriating between \$600 and \$700 for promoting the work during the first year.

In 1916, as new county agents were appointed, the work was undertaken in more of the counties of the State. Club enrollment increased three hundred per cent, and swine, poultry and apple clubs were organized in addition to the corn and potato clubs previously successfully conducted. Six hundred and fifty boys were enrolled in corn and potato clubs during this year. One of the successful undertakings of this period was the State trip for club winners made possible by contributions of the "Baltimore Sun" and public spirited citizens. The trip made it possible for farm boys on the Eastern Shore to visit the western section of the State and club boys of western Maryland to visit the Eastern Shore.

War-Time Accomplishment

With the entry of this country into the World War, every effort was made to stimulate production and the boys' clubs, already started in the important task of food production, offered an immediate opportunity for increasing the agricultural output of the State. Consequently four assistant club agents were appointed in 1917 and 1,213 club members were enrolled and produced products to the value of \$30,545. This was a splendid record and a fine contribution to the national cause from the club boys of Maryland. On July 1, 1917, Mr. Brigham resigned as club agent, and Mr. R. F. McHenry was appointed to his place.

The following year witnessed a still further increase in the club work in the State. During this year 2,099 boys were enrolled in club work and produced products valued at \$56,368. In addition there were organized in the State 9,612 emergency clubs that produced food products estimated at \$140,479. The first short course for club members at the Maryland State College of Agriculture was inaugurated in 1916 and has been continued as an important regular feature of the work since. Ninety-two boys were selected for the course and \$2,450, offered by Mr. Edwin G. Baetjer, State Food Administrator, was distributed to winners of projects in the various counties.

Reconstruction

The close of the war and reduction of available funds caused retrenchment. Mr. Brigham had resigned in 1917. His successor, R. F. McHenry, and his four assistants, who accomplished so much during war days, had left the club organization by the end of 1919. E. G. Jenkins was brought in from the Federal Department of Labor as State Boys' Club Agent and P. W. Chichester secured as part-time assistant and later Assistant State Boys' Club Agent.

Building on the foundations erected the first five years, club work had grown into a very definite and valuable factor in Maryland's agricultural affairs. From the original corn and potato clubs, through the school competitive phase, it is now becoming a part of community, county and State programs of work, functioning on a more definite community extension demonstration basis, and is commanding the interest and backing of every big enterprise that in any way affects Maryland farm and home life.

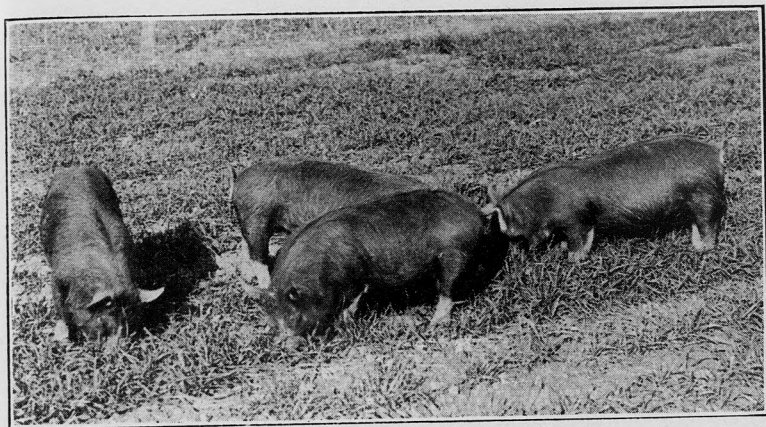
Livestock and Crop Projects

Finding its place in the Extension Service program for the improvement of animal husbandry, Boys' Club Work started purebred swine demonstrations in 1919. While only a few counties are yet effectively using Boys' Clubs in this field, the figures are significant of its possibilities. In 1924 there were reported to have been 1788 purebred swine in the hands of club boys and this is fully one-fourth of the registered breeding swine in the State. In Allegany, Howard, Harford and Worcester Counties practically all the better swine and much of the improving practices can be traced directly to club influences.

Club influence upon the better dairy campaign started in 1922 when 35 club members in Harford County purchased registered calves at an average of \$169 each. There are 284 dairy club members owning 370 registered dairy animals in

fifteen counties now, but mass attack on the better dairy problem is being made most effectively in Garrett, Allegany, Frederick, Harford, Montgomery and Kent Counties.

The movement toward better dairymen is strikingly shown in our dairy judging work. Hundreds of club boys have had considerable instruction in the matter of selecting the best dairy individuals with large opportunities of seeing good cattle. Scores have visited many of the best herds in the United States and a few have seen the best in this country



FORAGE AND PASTURE CROPS ARE RECOMMENDED FOR ECONOMICAL PRODUCTION OF SWINE

and Europe. In our judging contest the State teams that have been chosen by elimination contests have been in nine interstate, national or world-wide contests, winning first place five times and being among the prize winning "first five" every time but one.

In poultry, club work is only beginning to realize its opportunity. Following an egg setting plan without much purpose or interest for a few years, work was started along flock management lines in 1922 with a three fold improvement per demonstrator. The work more than doubled the following year and in 1924 again pyramided.

Poultry club work has already been the means of securing standard flocks on enough farms in several communities to effect better practices throughout the locality, and is beginning to spread these practices county wide, much as swine club work has done.

Corn club work has affected a number of communities in a similar manner, and 1924 saw the start of a movement to use potato club work to assist in the production of certified seed.

What was said by the specialist to have been the best community tomato plant bed on the Eastern Shore in 1924 was operated by a club boy as a club demonstration as well as a Farm Bureau project. Over 400,000 plants were distributed from this bed.

Sheep club work on an Extension basis was started in 1924.

Inspirational Activities

Exhibiting club products, especially cattle, swine and poultry at fairs, has had much to do with popularizing club work among adults, has had great influence upon farmer boys and girls and has been one of the best means of spreading the idea of better types of animals, the value of better methods of feeding and care, and also has emphasized the value of better seed selection and cultural methods in corn and potatoes. This activity has also been one of the best means of convincing the public that the Extension Service of the University of Maryland, cooperating with the U. S. Department of Agriculture, is successfully carrying better practices to the farms and homes, and can do the greatest service to the State by thus advancing a more satisfying standard of life and livelihood among its rural folks.

Demonstrating methods, judging livestock and crops, exhibiting and participating in all sorts of inspirational affairs at interstate, national and international expositions, have broadened the vision, increased the knowledge and strengthened the purpose to serve home folks and home communities immeasurably. Probably the taking of a dozen boys and girls to participate in the affairs of Camp Vail, the 4H section of the Eastern States Exposition, each year since 1922 has been of greatest influence.

Cooperative Agencies

The boys' club work has received moral and financial support from many agencies in the State during the past decade. Notable among them has been the State Bankers' Association, which for the past four years has contributed liberally towards promoting the work. It was through its assistance that boys were financed to Camp Vail, to club week and to various contests. Various breed associations have aided by contributions of money and animals, to promote the work. The Timonium Fair has given liberally towards prizes and expenses for the conduct of judging and contests at its fair and sending the win-

ning team to the National Dairy Show. Mr. Lewis McLane Merryman took the lead in financing the trip to the Atlanta Exposition in 1920, when our boys' club team won as the first prize a trip to the English Royal Agricultural Show. The State Farm Bureau, the State Grange, and many local organizations and persons have constantly backed this interesting and profitable work by their moral and financial support. To all these agencies the Service is deeply grateful.

Club Week

Club members gathered at College Park for the first "short course" in 1918. In 1920 the event was renamed "Club Week," and each year improvements in one or another activity have been made. Now outstanding club members carry on all affairs even to demonstrating improved methods in all projects before the various groups. This not only develops leadership, gives outstanding boys and girls a means of finding themselves and a vehicle of expression, but it is above all else a demonstration of what can be done back home and an inspiration to go back and do it.

Camps, 4H club days, camp fire nights, banquets, club tours and club entertainments have increased greatly.

The increasing size of demonstrations with consequent increasing values (\$109.65 per boys' club member in 1923 and probably greater still in 1924) and the inspirational activities wherein the most advanced methods are used are doubtless the two most important motivating influences in Maryland club work, as it advances year by year, endeavoring to assist the Extension Service to carry out its "aims" and promote its "ideals" to the end that we may have greater prosperity and more contentment on Maryland farms.

FARM CROPS

For a good many years and prior to the establishment of the Extension Service, Maryland was fortunate in having a fairly stable agriculture. Throughout those sections of the State devoted to general farming, a definite system of crop rotation was in practise and usually sufficient livestock was kept to insure maintenance of soil fertility.

There have been comparatively few changes in this system of farming. Only in certain sections of the State was there an evident need for an improvement in the system of agriculture in practise. The task of the Extension Service during its ten years of existence, therefore, has been to encourage a continuation of this system of farming and to bring about improvements in the cultural methods of the crops produced.

In so far as the major farm crops of the State are concerned, the tendency has been to maintain a well-balanced planting program. A review of the figures for the past ten years will show only a few minor and temporary changes in the acreages devoted to the major farm crops. During the World War, in response to the general appeal for increased production of certain cereals, acreages for a few crops were expanded, as was to be expected. Since then, however, there has been a gradual return to normal rotations and normal acreages.

Effects of Depression

With a well-balanced system of agriculture prevailing in the State, Maryland has been less subject to the periodic influences of outside economic conditions than many less fortunate states. Evidence of this was seen during the depression following the World War, when agriculture everywhere was put to its most severe test. In Maryland, agriculture experienced the serious effects of a long period of low prices. Debts accumulated on many farms and rigid economy was necessary throughout the agricultural sections of the State. It is safe to say, however, that Maryland agriculture escaped many of the most severe hardships which were imposed on less favored sections.

Economical Production Stressed

The fact that the State has enjoyed a well balanced system of diversified farming does not mean that no difficult problems have been encountered in the production of farm crops. The Maryland farmer has constantly been confronted with the one big and outstanding problem of keeping production costs sufficiently low to show a profit on farm crops.

Prior to the war this problem could be traced to the competition from the West, where crops could be grown on a larger scale, with more extensive use of machinery and with little or no expense for fertilizer. Against this competition it was necessary for the Maryland farmer to exert every effort to produce his crops as economically as possible. During the war and following it, farm labor became a real problem and with rapidly mounting wages it was necessary for the Maryland farmer to give still further attention to methods of production which would give him the maximum yield for the minimum of labor employed.

It has been along the lines of economical production that the Extension Service has worked. The chief object has been to advocate methods of production which would produce the greatest returns for the amount of time, labor and money expended. There were many problems involved such as the

control of diseases, the introduction of better cultural methods, the use of improved seed, the establishment of improved seed sources within the State, an increase in the acreage devoted to legume crops, a better understanding regarding the use of lime, the economical use of fertilizers, the general problems of farm management, etc.

Considerable work in agronomy was done in the State prior to the establishment of the Extension Service. Pretty largely this consisted of giving farmers necessary information regarding the planting of alfalfa and of recommending suitable varieties of wheat, corn and oats for the different sections of the State.

Mr. N. Schmitz, who had directed this work prior to the formation of the Extension Service, was continued under the Extension Service on a part-time basis for the first year. In 1916, Mr. W. B. Kemp was appointed as agronomist and served in that capacity until September 15, 1917. Mr. F. W. Oldenburg was appointed extension agronomist upon Mr. Kemp's resignation and has directed the work since that time. Prof. W. T. L. Taliaferro has served as a part-time specialist in farm management since the organization of the Extension Service and has rendered much valuable assistance during that period.

Prof. J. E. Metzger, Agronomist of the Experiment Station, has supplemented the work of the Extension specialist in promoting the introduction of good seed wheat, soybeans and other crop work.

These specialists have worked with the county agents in developing the farm crop program.

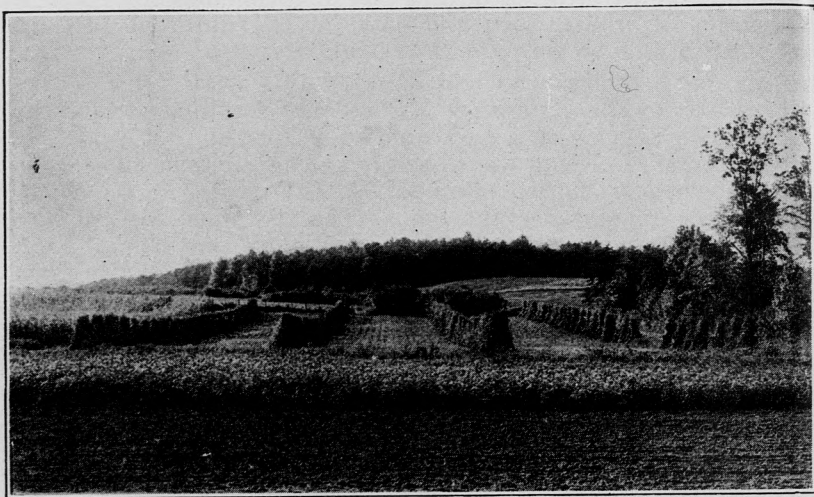
Improving Varieties of Corn

Corn, the leading farm crop of the State, has naturally commanded much attention. Approximately 650,000 acres of land are annually devoted to the production of this crop. While there have been numerous cultural and fertility problems connected with the production of corn, probably the most beneficial influence which the Extension Service has exerted has been in the direction of improved seed.

Every county in Maryland produces many varieties of corn and mixtures of corn varieties. Some of them are very good in some respects and poor in others. Generally much of the corn grown is lower both in yield and quality than the best. The effort, therefore, has been to acquaint farmers with the better varieties and to get those varieties used. This has been accomplished through demonstrations, exhibits, field meetings, lectures and publicity.

In connection with the more general use of good seed, it has been deemed desirable to encourage a more extensive pro-

duction of native-grown seed of the desirable varieties. There are now in the State more sources of good seed than at any previous time and the result has been a far more extensive use of good seed than ever before. Considerable impetus has been given to this movement by encouraging Maryland growers to exhibit at the International Grain and Hay Show in competition with corn growers from the Middle West. In 1922 Maryland growers succeeded in winning twenty-two prizes at this show and in 1923 were awarded thirty-four places.



MARYLAND'S CORN CROP ANNUALLY OCCUPIES 650,000 ACRES OF LAND

Seed Corn Selection

Seed corn selection has, of course, been an important element of the work during the ten-year period. This work has been designed to improve the quality of the corn planted, irrespective of variety, and to improve the yield by selecting for vigor and resistance to disease. This work has made fine progress throughout the State and many demonstrations have been conducted that make clear its advantages.

During the past four years, emphasis has been placed on selection of corn for freedom of certain factors associated with root rot. In 1921 there were 10 of these demonstrations in 10 counties; in 1922, 59 in 14 counties; in 1923, 65 in 19 counties, and in 1924, 68 in 20 counties. Results from these demonstrations have been marked each year and have shown especially good increases for the selected corn in medium to poor corn land. In 1921, in all the demonstrations conducted the average increase in favor of the selected seed was 11.89 bushels per acre; in 1922, 9.33 bushels; in 1923, 6.78 bushels, and in 1924, 9.2 bushels. The great value of this work, once

its application becomes more general, will be apparent as even a small increase per acre on the 650,000 acres devoted to corn will increase the value of the crop tremendously.

A development of seed corn testing that is important and that illustrates the value of work which the Extension Service is constantly performing, is the discovery and distribution of Gifford's yellow dent corn. This variety, introduced into Cecil County by Mr. R. Gifford, was found to be exceptionally free from abnormal internal cob discoloration and exhibited many other signs of vigor and resistance to disease, and has consequently out-yielded other varieties in those sections to which it is particularly adapted. It was consequently given numerous trials in the various counties of the State under the supervision of the Extension Service. While it is not recommended for all regions, it has nevertheless become the favorite variety of corn in sections of Talbot, Somerset and Allegany counties. This variety is holding up well in its signs of resistance to disease and in the hands of seed growers is gradually improving.

Introducing Better Varieties of Wheat

Next to corn, wheat is Maryland's most valuable crop and annually occupies some 600,000 acres of land. Much the same problems have been encountered with wheat as with corn and the effort of the Extension Service has been largely devoted, during the ten-year period, to the introduction of suitable varieties and to the establishment of those varieties best adapted to soil and climatic conditions of various regions of the State.

The problem of getting good seed wheat into the hands of farmers has been simplified by the valuable work of the University of Maryland Experiment Station. Seed of improved varieties grown on the experimental plots at College Park has been distributed to farmers throughout the State. The Extension Service has cooperated in this distribution and by keeping in touch with the growers has been successful in developing desirable sources of good seed wheat.

As a result, good seed wheat has become widely distributed throughout the State and better yields are being obtained. With new information now available from the Experiment Station regarding the varieties of wheat grown in Maryland, it is probable that this work will advance more rapidly during the next few years.

Other Cereal Crops

With the minor cereal crops of the State, such as oats, barley, rye and buckwheat, much advisory work has been done by the Extension Service. As with corn and wheat, a very important factor in the success with these crops consists in securing

varieties best adapted to soil and climatic conditions. In giving recommendations along these lines as well as on methods of culture, the Extension Service has helped greatly in promoting economical production.

A glance at the available figures for recent years showing the acreage and production of the hay and legume crops will be sufficient evidence of the progress that has been made in increasing the acreage devoted to legumes. While practically all of the legume crops were grown in Maryland prior to the establishment of the Extension Service, the acreage devoted to their production was small.

The value of the legume crops to the agriculture of the State is apparent for a number of reasons. The production of these crops is advisable as a part of the usual rotation on many farms. Their chief value, however, in the State is in connection with the production of home grown feeds for livestock. For the dairying section particularly the legume crops supply a most economical source of protein feed and their more extensive culture has been advocated largely as a means of economy in the better feeding of dairy animals.

Developing Hay and Forage Crops

Approximately 450,000 acres of land are planted to hay and forage crops annually. There has been a gradual increase in the acreage devoted to alfalfa so that now approximately 16,000 acres annually are devoted to the production of this legume. Clover occupies about 100,000 acres, and annual legumes, principally soybeans, are planted on about 44,000 acres.

With the hay and forage crops, particularly the legumes, a most important factor has been the guidance of the Extension Service in securing suitable seed and suitable varieties. With clover, especially, the source of seed is important and the work that has been done in familiarizing farmers of the State with the proper sources of seed has been of great economic value. Similarly with soybeans, the Extension Service has prevented much waste of effort, time and money by acquainting farmers with the varieties best adapted to Maryland conditions. In connection with the soybean crop, sources of home grown seed have been developed. The production of this seed has become an important enterprise in many sections and has, of course, had an important bearing on the general production of the crop in the State.

Improving Tobacco Yields

Several rather important problems are involved in the production of tobacco which is annually grown on some 25,000 acres of land, principally in the five counties of Southern Mary-

land. The use of proper fertilizer and the control of certain diseases have commanded the most attention from the Extension Service.

The introduction of wildfire into the tobacco growing section during the past few years has called for very great improvement in the production of tobacco plants. The use of steam for sterilizing plant beds has been demonstrated by the Extension Service and other methods of safeguarding against the introduction and spread of the disease have been advocated. This work will become more and more valuable as indications point to a gradual spread of the wildfire disease throughout the tobacco growing counties.

The Extension Service has devoted much effort to make the production of Maryland Mammoth Tobacco, a variety developed by the Maryland Experiment Station, more general on the better tobacco growing soils and where this variety has been used the production per acre has been greatly increased. The use of high grade fertilizer has likewise been advocated and where the recommended practice has been followed, marked results have been obtained in higher yielding and more uniform crops.

Soil Fertility Work

Any reference made to the progress of the work with farm crops would be incomplete without some mention of the efforts devoted to improving soil fertility. This work has consisted of getting before the farmers of the State the facts regarding the use of lime, the economical use of fertilizers, modifications of the cropping system and an understanding of the proper utility of the various soil types in the State. Numerous lime demonstrations have been conducted, thousands of soil tests to determine adequate lime applications have been made, many fertilizer demonstrations have been carried on and much other soil improvement work has been directed.

Dr. A. G. McCall, soil specialist of the Experiment Station, has contributed largely to the Extension work in soils and fertilizers.

The soil survey of the State that has now been completed by the Experiment Station has been and will be in the future a great aid to the Extension specialists and agents in developing crop work.

HORTICULTURAL CROPS

As mentioned in the introduction, Horticultural Extension Work had its inception some years prior to the establishment of the Extension Service.

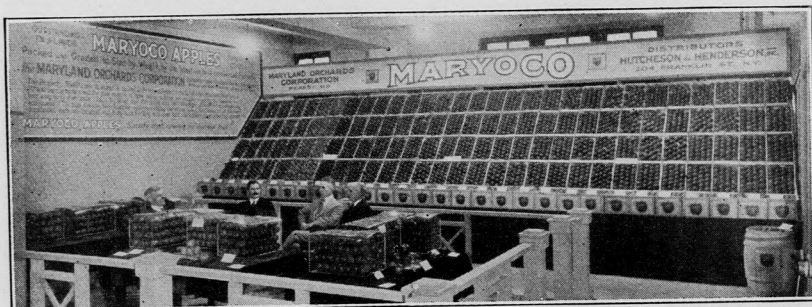
In January, 1898, a committee of five, called together at Baltimore a group of fruit growers, nurserymen, florists,

truckers and commission men for the purpose of discussing the matter of needed legislation for the "protection and extension of our horticultural interests." Quoting from an address of Capt. Robert S. Emory, of Chestertown, Md., "A bill for the protection and extension of our great horticultural industries was drafted, presented to our General Assembly and unanimously passed by that honorable body."

The organization of a State Horticultural Department, thus provided for, was erected at the Maryland Agricultural College and through that institution developed a service of unusual benefit to the fruit industry of the State. Naturally a great deal of this work was in the nature of personal services and of necessity was limited to individuals and communities manifesting the greatest interest.

Orchard Fruits

From the period 1903 to 1914 there was an unusual development of our orchard fruit industry, especially in the planting of apple orchards in the western part of the State. It was during this period, beginning in 1904, that the great Tonoloway



THE COMMERCIAL PACK OF BOXED APPLES OF THE MARYLAND ORCHARDS' CORPORATION WAS EXHIBITED AT THE NEW YORK SHOW

apple orchard of 700 acres was planted and developed together with many other tracts in the vicinity of Hancock, Washington County, and farther west in the Green Ridge in Allegany County. Later many apple orchards were developed east of Hancock and also in Frederick and Montgomery counties.

From 1910 to the present date there has been a shift from apples to peaches. During this period large peach orchards have been developed on the Eastern Shore at Berlin, Worcester County, where about 50,000 peach trees are now growing and nearly as many at Salisbury, Wicomico County, and Easton, Talbot County. During this period large plantings of peaches have been made in the Hancock section approximating over 100,000 trees.

During the past ten years efforts have been directed towards apple plantings and developing peach orchards in various sections of the State.

With the establishment of the Extension Service a full time specialist in this subject was secured who, with the Entomologist and Pathologist provided under the State Horticultural Department together with the County Agent force, erected in the counties, made possible a great expansion of our Extension Work among fruit growers to meet the demands of this developing industry in the State.

Mr. S. B. Shaw was appointed full time specialist in Horticulture, October, 1914. He continued to serve in this capacity until October, 1924, when he desired to specialize in Marketing Work. Mr. A. F. Vierheller was appointed specialist in horticulture, November, 1924. Dr. E. C. Auchter, appointed head of the Department of Horticulture in 1918, has served as a part-time specialist in this subject and assisted in developing the work in the State.

Control of San Jose Scale

While prior to 1914 the San Jose scale was under control in this State through the work conducted by the officers of the State Horticultural Department, yet there was still much work to be accomplished in the education of our growers for the treatment of this pest as well as of other insect pests and diseases affecting these fruits. It has been said that the San Jose scale was a blessing in disguise, for it necessitated the grower to give better attention to his trees and caused the development of orchard spray practice which served to control other pests and diseases in addition to the scale. Therefore, it goes without saying in these days of orchard culture, that with the planting of orchard trees, whether peach or apple, adequate provision must be made for effective spraying of the trees annually.

Better Methods of Culture

The Extension Work in Horticulture conducted by the specialists and agents from 1914 to 1924 consisted in carrying out definite yearly programs in result and method demonstrations, field meetings and direct contact with growers, aiding them in the solving of their problems, whether they be cultural control of insects or disease or in the grading and marketing of these crops.

While in 1916 the specialists reported conducting less than 30 definitely outlined demonstrations, in 1924 there have been over 414 definite demonstrations projected in 23 counties. Field meetings where some kind of horticultural work was con-

ducted, such as pruning, spraying, etc., have largely increased, and while 1200 fruit contacts were made by the Extension forces in 1915, 6,500 contacts were made in one manner or another during the season of 1924. Projecting this work through organized effort by the specialist and agents in co-operation with local grower units has been the means of securing a greater spread of influence among the growers of the State.

Spray Service

Daily weather forecasts were received from the U.S. Weather Bureau through the cooperation of State Meteorologist Spencer at Baltimore during the frost danger period; orchard observations as to development of disease and insect troubles were received from the Specialist in Entomology together with control measures; this information was telegraphed to the four County Agents in the leading fruit sections of the State. They in turn gave publicity to this information through local newspapers and transmitted it direct to the growers through a system of spray service cards supplied by this office for the purpose. This service was supplemented by sending to all other County Agents spray service cards of which there were six sets of peach spray service and seven of apple spray service cards, reaching approximately 400 growers.

Small Fruits

The commercial small fruit industry of Maryland is confined almost entirely to the production of strawberries. In 1924 the acreage planted (10,200) ranked fifth in the United States, while the total production of 22,440,000 quarts was third. From Marion, Somerset County, was shipped the largest number of cars (667) from any station in the United States.

Specialists in horticulture, entomology, and plant pathology have cooperated in developing this industry. Demonstrations in fertilization and dusting have been conducted both with individuals and in communities.

Considerable interests have developed recently in the planting of strawberries and dewberries in the Salisbury section of Wicomico, while the greatest production of black raspberries continues to center around Washington County. Here too, demonstrations have been conducted showing how yields may be increased through the employment of proper methods of cultivation, fertilization, spraying, and dusting.

Truck Crops

For a number of years the growing of truck crops was confined largely to that part of Anne Arundel, Howard and Baltimore counties, immediately adjacent to Baltimore City,

although quite a volume of such crops, as early Irish potatoes, tomatoes and sweet potatoes, was produced in the Eastern Shore counties, particularly those of the southern end of the peninsula.

During more recent years, and especially since the inauguration of Extension Work, there has been a steady increase in the production of truck crops, both with respect of volume and kind. In the past four years the acreage of asparagus has doubled. The greatest interest in this crop has been centered in Cecil County. Interest has become so keen that for the past two years an annual field day tour has been held by the county agent and specialists, at which time growers from other sections of the State have assembled to spend an entire day visiting various plantings ranging from seed beds to those that have been established for from ten to eighteen years. In 1924 six counties participated in the tour. There has also been a good development of this industry in Kent County.

The acreage in snap beans has increased in the past four years from 480 acres to 4,070 acres. This year a total of 49 cars of snap beans were shipped in fresh condition. The largest part of the crop, however, went into the canning trade. The total pack of beans this year amounted to over 900,000 cases valued at over \$1,000,000. This of course includes the parts of lima beans but not baked beans. As mentioned elsewhere, Maryland ranks first in the canning of fresh beans.

The production of cantaloupes has remained fairly constant during the past four years. Approximately 5,500 acres were grown this year, most of which were in Wicomico and Dorchester Counties. From Salisbury, Wicomico County, approximately 500 cars were shipped. Over 50 demonstrations and two dusting rings were conducted this year for the purpose of insect and disease control. Similar conditions prevail with respect to cucumbers which are grown mostly in the same territory and under similar conditions as are cantaloupes.

Early Irish potatoes as a commercial crop are mostly grown in Worcester County. There has been an increase of over 4,000 acres planted to this crop during the first four years. Of the two to three thousand cars shipped annually from the State approximately two thousand go from points in Worcester County, Pocomoke and Snow Hill being by far the largest shipping points. During the past few years the Extension Service has been instrumental in further developing this industry. The planting of better seed, the more advantageous use of fertilizer, protection against insect and disease pests, better grading and packing, are all operations, the value of which has been successfully demonstrated.

The commercial production of spinach has been confined almost entirely to the trucking section immediately adjacent

to Baltimore. Maryland ranks fourth this year in the production of 1,183,000 bushels for table use. The State ranks second in production of 4,700 tons for canning. Acreage has increased in the past four years from 960 acres to 2,190 acres.

Maryland has always held its place in the production of tomatoes for canning but within the past four years there has been a considerable increase in the production of this crop for fresh table use. Four years ago 640 acres were planted with a production of 80,000 bushels. This year 7,340 were planted with a production of 918,000 bushels. The activities of Extension Work in connection with the growing of tomatoes for canning purposes have been reflected in the production of this crop for fresh table use. At Easton, in Talbot County, this work has been organized more intensively than in any other part of the State. The county agent and specialists were able this year to have the entire crops assembled at one central point, graded and packed under standards promulgated by the U. S. Department of Agriculture. The growing of early tomatoes for market has been an industry in Somerset County for some time and the county agent and specialists have assisted in its further development.

Grading and Marketing

Notwithstanding the early developments in the horticultural industry of the State and the nearness to markets the isolated sections that have developed this industry have tended to prevent rapid progress in the standardization and cooperative marketing of our fruit until comparatively recently. This is also accounted for in part by the fact that our production has been largely by single large producers who were able to sell in carload lots and command good market for their fruit by the adoption of individual grading.

The demand for improving grades in apples was reflected in the passage of the Apple Grading Bill by the Maryland Legislature in 1916. No appropriation was provided for its enforcement and the lack of such legislation in adjoining fruit producing territory made the enforcement of the law impracticable. However, the continued market demand for better quality of product and uniform grading and packing has forced many growers to adopt better methods of culture and packing their product for market and during the past two years encouraged cooperative enterprise and action in the industry. There are now five central packing houses in fruit centers where the fruit of a large number of growers is packed and graded uniformly. This method of preparing the fruit for market is no doubt desirable and will prove profitable to the industry. Undoubtedly during the next few years tremendous progress will be made in this direction throughout the State.

Shipping-Point Inspection

During the past year, 1924, a limited amount of shipping-point inspection has been conducted at four fruit centers in the State. A total of 313 cars of apples and 108 cars of peaches were inspected by inspectors of the U. S. Department of Agriculture in cooperation with our forces. With the establishment of the State Department of Markets, July, 1924, working with the Extension Service in the same manner as the State Horticultural Department, it is hoped that standardization and inspection in the fruit industry will be greatly promoted so that our fruit interests will be as well organized for cooperative marketing as is now the case in the dairy industry.

It is believed that the tree fruit industry has a great future in this State. The quality and color of Maryland apples and peaches cannot be surpassed in any section of the United States. Commendable progress has been made during the past decade but we believe the improvement of our standards and the development of cooperative agencies for proper and efficiently marketing our product will serve to make the industry much more profitable in the future than in the past.

CANNING CROPS

Maryland for years has been known for its great canning crop industry. Chief among the crops raised for canning are tomatoes, sugar corn, peas, spinach, etc. For years Maryland canned more than half of the tomato pack in the United States. Today the State continues to rank first in tomatoes canned, third in corn, third in peas, and second in spinach packed in the United States. The war period caused quite a fluctuation in this industry in the State and likewise led many other sections of the country to increased production of these crops. During the decade and more recently since 1919 some concern has been felt for the tomato canning industry on account of reduced yields. In fact the average yield of 3.3 tons of tomatoes per acre for several years, together with low prices, caused many growers to become disgusted with the crop. While efforts had been made by our Extension forces, both specialists and agents, to aid the growers toward improving yields, it was not until 1922 that a plan was devised that attracted the attention of both packer and grower.

Community Plant Beds

The plan of developing community plant beds was devised by County Agent A. D. Radebaugh of Cecil County, who, recognizing the need for better tomato seed and better plants, induced a number of growers to adopt the community plant bed project as a source of plants for their field plantings.

Mr. W. R. Ballard, specialist in vegetable culture, and the agents in the tomato growing counties, greatly assisted in this project. We have also profited by the helpful suggestions of Mr. C. G. Woodbury of the National Cannery Association.

The demonstration work in Cecil County that year increased the yield of tomatoes by the growers using these plants from an average of 3.3 to from 6 and 8 tons per acre. This success immediately enlisted the support of the packers and growers throughout the tomato growing territory. The Tri-State Packers' Association showed their interest by contributing funds to enable the service to have Mr. Radebaugh and the specialists and agents extend this form of demonstration to other counties.

In 1923, thirty-five plant beds were established in thirteen counties by the agents and specialists. These beds varied in size from one-eighth acre to one and one-half acres. More than 7,500,000 plants were produced in these centralized plant beds, and the quality of the plants was much above the ordinary. In all communities there was an increased yield of tomatoes from the use of these plants. While 1923 was a good growing year for tomatoes, yet the agitation among growers to use good seed and produce good plants served to emphasize better cultural methods in the growing of the crop. As a result, the increased yield from plant demonstrations varied from one and one-half to six tons per acre, while the State average increased from three and one-half tons to five and five tenths tons in 1923. This increased yield returned to the growers a sum in excess of one million dollars.

During the 1924 season this work progressed with community plant beds, producing and distributing about nine million plants. The poor growing season cut down the State's average yield, but many individuals secured unusually good yields.

The adoption of this plan has aroused unusual interest in seed selection for tomatoes and promoted similar work with corn and peas. Plans are now under way to develop this work with the three leading canning crops in the State. It is believed that this demonstration in better cultural methods will serve to retain the industry for the State and develop definite standards for Maryland packed goods that will make them command a premium in the canned goods market.

Importation of Southern Plants

To meet the demand of canners for early tomatoes in order to extend the season, a premium being offered in price, a demonstration of importing plants from the South, was carried on last year in Dorchester County. Our Extension forces co-operated with the Farm Bureau in furnishing selected seed

and having the plants grown under proper supervision at Charleston, S. C. Approximately three million plants were received from the South and distributed to the growers cooperating in the project. It is estimated that only fifty per cent of these plants lived after being planted in the field, but this high mortality was attributed to wet weather, poor drainage, cut-worms and other insects.

This project is only mentioned here to show the developments in the industry. The ultimate success of securing plants from the South will be determined in the future.

Miscellaneous

Much work has been done by the Extension Service in aiding the pea and corn growers. In peas, the work has centered around control of disease and insects, while in corn, seed selection and rotation has been emphasized. Comparatively and in respect to the size of the industries, not nearly so much progress has been noted in these crops as with tomatoes. It is planned to develop work with these crops the coming year as additional funds have been provided by the Tri-State Packers' Association.

A canning fund appropriation of \$10,000 was requested by the service of the last legislature, but was refused. It is hoped that proper attention can be given this important industry in the future.

ENTOMOLOGY

So much entomological work is of an emergency nature, varying in scope and intensity from year to year, that it is always difficult to depict the continuity of progress in this essential field.

The entomological work of the Extension Service has been conducted in conjunction with the work of the State Horticultural Department. Mr. E. N. Cory, State Entomologist, has served as specialist in entomology since the inauguration of the service. Mr. W. C. Travers, assistant, did valuable work in this field until his death in January, 1922. Mr. P. D. Sanders was appointed in 1922 as assistant entomologist in place of Mr. Travers.

Orchard Insect Control

Throughout the past ten years commercial orcharding has developed extensively in the State, and this department has endeavored to teach the importance of thorough and timely control of the orchard pests. In accomplishing this end the demonstration was used for several years, starting with one orchard of 10,000 peach trees in 1914. In that year the crop was saved, and owing to the publicity given to the demonstra-

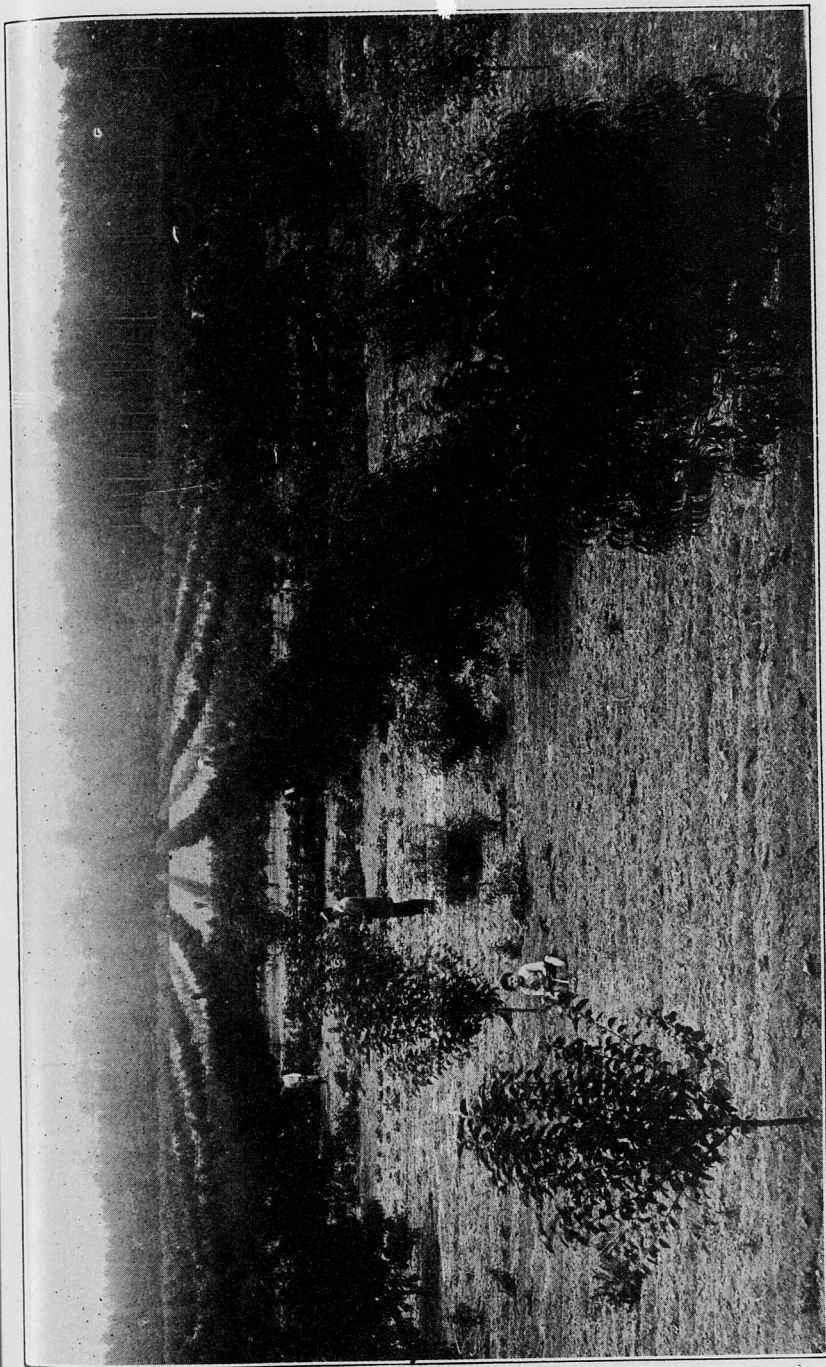
tion by the owner, the demand for this type of demonstration increased so that up to 1920 each year saw an increase in the number of orchards placed under demonstration. In 1920 the result method demonstration was abandoned in favor of method demonstrations, as it was felt that result demonstrations were no longer necessary, owing to the fact that commercial orchardists generally recognized the necessity for spraying. From that time on to the present, method demonstrations have taken the place of result demonstrations in all commercial orchards.

The Spraying Schedule

During the period from 1914 to 1920, a mass of information was collected which led to some modifications in the spraying schedule, but in the main the same procedure has been followed. In 1917 a simplified spraying chart or program for the commercial grower, by E. N. Cory, was issued as Bulletin No. 3 of the Maryland Agricultural Extension Service, which has had unusual popularity and usefulness, leading to the annual practice of revising this schedule to include the latest information obtained at this and other experiment stations. Today the annual publication of the spray calendar is looked forward to by commercial growers to such an extent that the purchase of spray materials is postponed by most growers until the recommendations included on this spray program become available. The extent to which this spray program is used is indicated in part by the fact that several commercial firms have reproduced the chart in its entirety in advertising material, thereby providing a much wider dissemination of information than has been obtained by the direct mailing of the spray calendar to the horticultural mailing list of this State. This schedule at the second revision was issued under the joint authorship of the departments of entomology, pathology and horticulture.

Spray Service

From 1922 to the present time a spray service has been maintained cooperatively with the departments of plant pathology and horticulture. In the beginning only a few County Agents availed themselves of this service, which includes, through the cooperation of the Weather Bureau, daily 24-hour forecasts of the probable weather. The value of this service may be judged by the fact that each County Agent in the State is now eager to receive the information. The development of insects is kept under observation by an extension entomologist, who visits the commercial orchards during the critical season and is enabled thereby to time the application of sprays to secure the maximum efficiency. This service is a direct outgrowth of the result demonstrations in the principal com-



SOME COMMERCIAL ORCHARDS COVER MANY HUNDREDS OF ACRES

mercial orchards, and, while it is designed primarily for the commercial orchardists, a spread of influence from the commercial orchard is very noticeable in the amount and quality of the spraying done in home orchards in the neighborhood of the commercial orchards. Approximately 576,000 trees are kept under constant observation by the Extension Entomologist, and it is safe to say that the quality of the fruit in these orchards is largely dependent upon the accuracy and timeliness of the information furnished to the growers through the medium of the spray service and by direct contact with the Extension Entomologist.

Control of the Strawberry Weevil

In 1917 result demonstrations of the dust method for the control of the strawberry weevil were started in Caroline County and continued in Somerset and Wicomico counties in 1919 and 1920. Since that time the dusting of strawberries to control the weevil has become an annual farm practice in the strawberry growing sections, so that it may be safely said that the method has been adopted generally, much to the profit of the growers who, prior to 1918, lost as high as 75 per cent of the crop on some varieties where no control for the weevil was applied.

The Angoumois Moth

In 1921 the Angoumois grain moth increased to such an extent that a campaign for its control became necessary. Through the publication of an information card from this department and a poster, together with many demonstrations and a considerable number of illustrated lectures before granges, farmers' clubs and farm bureau locals, the method of controlling this pest by fumigation with carbon bisulphide, and by the early threshing and the cleaning up of waste grain in the spring, was so generally adopted that the damage from the pest has become negligible.

Control of Peach Tree Borer

Probably the greatest achievement in insect control during the past decade has been the development during the past five years of a satisfactory remedy for the control of the peach tree borer which has been a troublesome pest to peach growers since the beginning of the industry in the State. The use of paradichlorobenzene has now not only greatly prolonged the life of a peach orchard, but has served to lessen the labor and worry of the average peach grower in protecting his trees from this recurring pest. The material is also of value against the black peach aphid and the oriental peach moth.

Japanese Beetle

As yet the Japanese beetle has not been found in Maryland. A severe infestation occurred in New Jersey and notwithstanding heroic efforts on the part of the Government, both Federal and State, there has been a considerable spread of the insect during the past two or three years. It was thought very probable that the insect would be brought into Maryland by auto travel over the State roads, but expert scouting up to this time has not revealed the pest.

Undoubtedly, this pest will be another serious burden for the orchardist to bear, but, fortunately, during the past year effective spraying has shown good results in preventing serious injury to fruit trees in the vicinity of the infestation in New Jersey.

Mexican Bean Beetle

Another pest that is anticipated in this State is the Mexican bean beetle, now present in the mountainous sections of lower Virginia, West Virginia and northeastern Pennsylvania, having spread north-eastward from the region around Birmingham, Alabama. The extensive industry in the growing of canning beans and market lima beans in this State will suffer when the pest reaches Maryland, as it undoubtedly will.

Control of the Pea Aphis

Based on the investigations started in the fall of 1922 on the dusting of peas for the control of the pea aphis, the practice of dusting market peas for the control of this pest has become an annual practice in the sections where the pea aphis is abundant. The increase in yield and the better quality of dusted peas have been abundantly demonstrated.

Dusting Cantaloupes

The control of cantaloupe pests, based upon investigations of dusting, has been adopted by the better growers in the melon sections. The use of dust mixtures eliminates the actual killing of the vines, increases the quality and prolongs the season so that sometimes the long period of yielding brings melons into the market under exceptionally favorable market conditions.

Beekeeping

The organization of the beekeepers of Maryland was effected by Dr. Symons when serving in the capacity of State Entomologist, and the secretary-treasurership has been held in this department ever since. The organization is prosperous financially, holds monthly meetings and generally serves to center and solidify the work of beekeepers in the State.

Dissemination of Information, Publications, etc.

The above examples of specific cases where methods advocated by this Department have become standard practices could be multiplied, but these few seem sufficient to indicate that the farmers generally are utilizing the information given them by this Department and look to the Extension Service for help when any new pest confronts them. It is believed that the success with which information is received is due in a large measure to the use of concise, simple information sent out from this office in the form of information cards and spray calendars. It has been the aim of this Department to build up the confidence of the growers in the service that can be rendered them by giving timely and accurate advice on all of their insect problems. Demonstrations, personal contact and correspondence all play a part in this. The correspondence alone amounts to an average of eight letters per day on some phase of insect control. That this confidence has become quite generally established is probably the outstanding feature of the past ten years. In addition, of course, large sums of money have been saved to individual growers and to the State at large through the control of insect pests.

PLANT PATHOLOGY

The plant disease control work of the Service is similar to insect control conducted largely in conjunction with the State Horticultural Department under the direction of the State Pathologist and specialists. In 1915 Mr. C. E. Temple, State Pathologist, was assigned to devote full time to this work. In January, 1921, Mr. Temple chose to devote his primary attention to teaching. At this time Dr. R. A. Jehle was appointed full time specialist in this subject.

Work on this project during the past ten years has covered giving information and conducting demonstrations for the control of diseases affecting all of our major and minor fruits, vegetables and crops. Substantial progress has been made in many directions.

Orchard Diseases

The average annual loss from apple diseases in Maryland has been from 200,000 to 300,000 bushels per year. The largest portion of this loss results from the apple scab disease which is unquestionably the most serious disease with which Maryland orchardists have to contend. In many of the large commercial orchards as well as in many smaller plantings, scab has been, or is being, only partially controlled, notwithstanding the fact that attempts are being made to spray the orchards at the proper time. Wherever possible field studies have been made in cooperation with the Entomologists and spraying recom-

mendations have been based on results of these studies. Good scab control has been accomplished whenever the recommendations were closely followed. This disease has caused the greatest trouble to our apple growers during recent years.

With the advent of Extension Agents the control of brown rot on peaches was effected in a practical manner by the use of self-boiled sulphur. Many demonstrations were conducted in the fruit sections for the control of this disease for peaches which is even more injurious to this fruit than perhaps scab on apples. All peach growers spray regularly for the control of this and other diseases so that a good peach crop can be assured if there is a good set. Spraying is now universally employed, while during the first years of Extension Work, it was the exception.

Corn Diseases

The average loss to the corn growers of Maryland from corn root, stalk and ear rots is estimated at 10 per cent of the crop, which amounts to about two million dollars per year. The disease is present in all of the corn growing regions of the State. Much time and effort have been devoted by the specialists and agents towards developing practical control measures and thereby reducing injuries from the diseases affecting the crop. These means have primarily involved seed selection.

In eighty-nine tests or demonstrations conducted over a period of four years in all parts of the State, corn practically free from internal cob discoloration yielded an average of nine bushels of shelled corn per acre more than corn with marked internal cob discoloration. The results of this work, the specialists report, seem to indicate that there is an apparent correlation between internal cob discoloration and yield, which is more pronounced on light sandy and clayey soils than on the best corn land. That seed from cobs free from internal discoloration is more resistant to the corn root, stalk and ear rots than seed corn from cobs which have abnormal internal discoloration has been demonstrated. This work has been conducted in cooperation with the Experiment Station.

Potato Diseases

The average annual losses from potato diseases in Maryland are about 700,000 bushels. Since most of these losses are the result of the use of inferior and diseased seed, most of the work with potatoes has been based on seed potato selection and certification.

The work of certifying seed potatoes in Maryland began in 1915 when 800 bushels of the best certified seed stock that could be obtained were secured at Caribou, Maine, and dis-

tributed among eighty-two farmers in the vicinity of Frostburg. Only a small number of those receiving this original stock became growers of certified seed. However, approximately ten thousand bushels of potatoes have been certified each year since that time.

At first the work was confined to potatoes grown in the mountainous regions of Allegany and Garrett counties. During the past few years numerous requests for certification of fall grown potato seed have been received. The certification regulations were modified so that this work could be included, with the result that more fall grown potatoes were certified than were certified in the mountainous regions. Thirty-three potato growers had certified seed in 1924. They produced 14,675 bushels of certified seed on 160 acres.

Sweet Potato Diseases

Approximately 500,000 bushels of sweet potatoes are estimated to be lost every year as a result of diseases in Maryland.

The most serious diseases of sweet potatoes in this State are storage rots, black rots, scurf, foot rot, stem rot and pox. In many of the poorer constructed storage houses the annual loss from storage rot and black rot are as large as twenty to seventy-five per cent. This condition therefore presented a problem for the specialist and agents in advising sweet potato growers how to select, grow and store this crop.

Demonstrations in seed treatment and seed bed sanitation were conducted in Dorchester, Wicomico and Worcester counties and as a result of this work a great many sweet potato growers in those counties are practicing these recommendations. A good idea of the increase in the practice of treating the seed with corrosive sublimate can be obtained by progress in Worcester County, where very little seed was treated prior to 1922. That year 600 bushels were treated in demonstrations, while during the past year 1,800 bushels of seed have been so treated. Splendid work has been done in the control of diseases affecting this crop, but much remains to be accomplished in eliminating annual loss from various diseases.

Tobacco Diseases

Work on the control of tobacco diseases has been limited mostly to the control of tobacco wild fire. This disease has apparently been present in the State only a few years. It apparently was brought into the State in the vicinity of Owings in Calvert County. From this center it has been spreading with great rapidity and last year it was found in every tobacco growing county in the State. The specialist and

agents through an extensive campaign and demonstrating the spraying of Bordeau in tobacco beds have largely reduced the loss from this disease. It is a disease that must be fought each year. It was estimated that 25 per cent of the beds of the State were saved from any injury by wild fire last year and fully 10 per cent more were partially saved by the recommendations of the Extension Service.

Tomato Diseases

The tomato diseases which are responsible for the greatest losses in Maryland are wilt and leaf blight, and tomato disease control work has been limited chiefly to the control of these pests. Tomato wilt has been controlled by the use of wilt-resistant varieties, some of which were originated at the Maryland Experiment Station. Field spraying demonstrations were conducted for the control of leaf blight, but notwithstanding the fact that the disease was checked, field spraying never became popular with the tomato growers. Seed bed spraying demonstrations for the control of diseases and insects were also conducted and seed bed spraying became very popular. It has been adopted as a general practice by the best growers. Dust is also being used in some beds and tests will be conducted this year to determine the relative efficiency of dusting and spraying in the seed bed.

Miscellaneous

Cantaloupe blight is very destructive in certain counties of the Eastern Shore, frequently causing losses of over 50 per cent of the crop. Dusting and spraying demonstrations have been conducted and the growers have been shown that blight can be controlled. As a result of these demonstrations a majority of the cantaloupe growers on the Eastern Shore are either dusting or spraying their vines with the result of the production of more fruit of better quality.

There are many other diseases that have been studied and means developed for their control by the specialists. Obviously it is the province of the Extension Service to demonstrate remedies that have already proven their merit and effectiveness by investigations and oftentimes in the control of diseases it is frequently desirable to apply tests where experimental work has not been thoroughly developed.

FORESTRY

In 1918 a project in forestry was negotiated between the Extension Service, the State Department of Forestry and the U. S. Department of Agriculture. Prior to that date and since that time the State Department of Forestry, directed by Dr.

F. W. Besley, State Forester, had conducted most valuable work in conservation of the State forest interests.

The project of the Service provided for assisting farmers in the handling of farm woodland, marketing of farm timber products, and for the encouragement of other lines of demonstration work in farm forestry. The State Forester has shown that Maryland has 2,228,000 acres of woodland which is 35 per cent of the total land area of the State, yet is dependent upon outside sources for five-sixths of the lumber used. The annual freight rate alone on timber imported into the State is approximately \$5,000,000. The annual cut of wood and timber is approximately 118,500,000 cubic feet, or nearly 50 per cent greater than the annual growth, causing a serious reduction in growing stock. The annual consumption of wood and timber is 200,000,000 cubic feet, or two and one-half times the annual growth. Our forests contain three species of the greatest variety and the highest commercial value, known in the Eastern United States. No section of the country is more favorably suited for timber growing than is Maryland, because of its valuable tree species, suitable soils, nearness to timber markets and the presence of important wood-using industries. For these reasons the Extension Service desired to do its part in cooperating with the State Forestry Department in giving specific advice to owners of woodland through selective cutting and marketing of timber and in conducting public demonstrations in various phases of forestry. Most of the woodland of the State is part of farm property and is therefore a problem in farm management.

During the last six years, due to limited funds, one specialist has devoted part time to this project, working with the county agents and land owners in various forestry problems. Only during the past two years have the opportunities for Extension and demonstration work been really appreciated by the majority of agents and land owners.

Mr. Samuel Corbin, who was delegated to the Service by State Forester Besley, as full time specialist in the fall of 1923, unfortunately died soon after assuming his duties and was succeeded by Mr. F. B. Trenk, who has made good progress with the work in cooperation with the county agents during the past year.

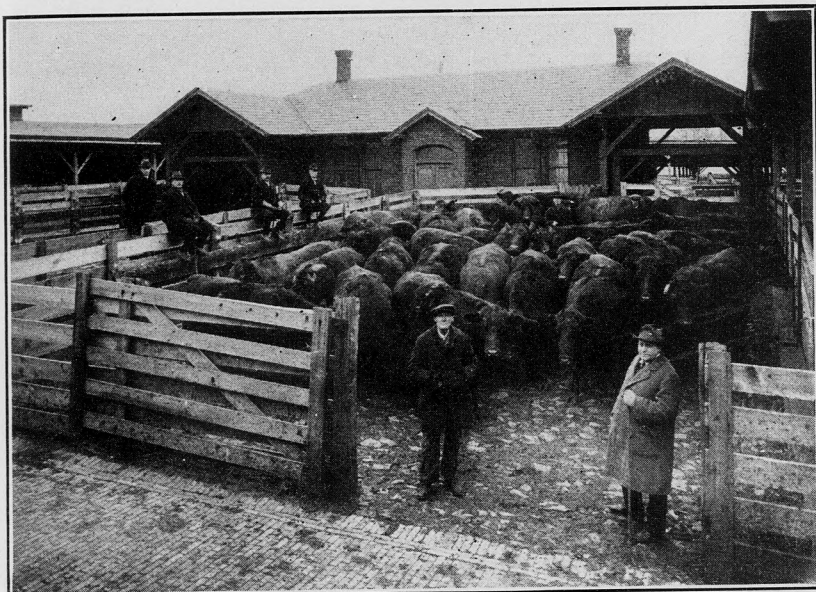
During the past six years a number of planting demonstrations have been inaugurated with promising results. Assistance has been rendered and demonstrations have been conducted by the specialist and agents in utilization of fuelwood, thinnings and improvement cuttings, timber making, planting and improving farm woodlots.

It is hoped with the recent passage of the Clark-McNary Bill by Congress for the general improvement of forestry in

this country that a fair proportion of the available funds will be devoted to Extension Work in Forestry. It is believed that the field has been well prepared in this State in cooperation with the State Department of Forestry for great strides to be made in the immediate future for the proper conservation of our forest resources.

LIVESTOCK

While Maryland never has developed any large or important livestock production industry as such, beef cattle, swine and sheep are generally distributed throughout the State, and in the aggregate are produced in rather large volume in conjunction with other farm operations. Horses and mules likewise are distributed throughout the State and are produced to some extent on many farms.



STEERS FATTENED IN MARYLAND WHICH SOLD FOR A GOOD PRICE AT THE STOCKYARDS IN BALTIMORE

On January 1, 1924, there were reported for the State 135,000 horses and 33,000 mules, valued at \$14,728,000. On the same date there were 103,000 beef cattle, valued at \$3,430,000; 96,000 sheep, valued at \$816,000, and 299,000 swine, valued at \$3,364,000.

These figures have remained fairly constant during the ten years that the Extension Service has been established. In fact the chief problem confronting the livestock

industry of the State has been not so much to increase the number of livestock maintained as to improve the quality of the animals and better the methods of management. Very largely the Extension Service program has been centered around the subject of economical production and the work that has been accomplished and the progress that has been made have had this as the main objective.

During the World War some effort was made to increase the production of sheep and swine to meet the demand for an increased meat supply of the nation. This work, however, was of an emergency nature. It is recognized that while the agricultural resources of the State and its favorable location with respect to markets offer many advantages for the increased production of certain kinds of livestock, the general farming system prevailing throughout the State and the predominating importance of the dairy industry are limiting factors in the expansion of the livestock industry.

The importance of the industry in the State, however, is due largely to the place which livestock occupy in the maintenance of soil fertility and to the fact that they are the means through which considerable quantities of farm crops are marketed.

The Extension Service, therefore, has consistently advocated the production and maintenance of livestock on an economical basis. It has encouraged increased production on farms or in localities where livestock could be cared for adequately and produced with reasonable hope of being profitable.

Purebred Swine

The Extension Service, therefore, has consistently advocated the production and maintenance of livestock on an economical basis. The work was begun March 15, 1916, with the appointment of Dr. S. S. Buckley as specialist in this line. Dr. Buckley devoted especial attention to the production of swine, and as a result of the work which he directed numerous county associations of swine growers were organized. These organizations, together with the efforts put forth by the Extension Service forces, resulted in an increased interest in purebred swine. Many good animals were introduced and many purebred herds were established which since have been of much value to the swine industry of the State.

During this early stage of the development of the Extension Work in livestock, boys' clubs were organized and hundreds of demonstrations in various phases of swine production were conducted. Thus was laid the foundation for the valuable pig club work which has been responsible for the distribution of hundreds of purebred swine throughout the State.

During this period efforts also were directed to securing a greater use of forage crops for hogs, toward an improvement in livestock sanitation and to improving the methods of cutting and curing meats on the farm. This latter phase of the work was productive of much good and in cooperation with the home demonstration work helped materially in the conservation of meat products at a time when every effort was being directed to husbanding the country's food supplies.

In 1918 Mr. T. E. McLaughlin was appointed as district agent and specialist in animal husbandry and inaugurated some valuable work in connection with horses and beef cattle. Among other things, Mr. McLaughlin conducted a stallion survey which indicated the need of a stallion registration law in the State.

Development of Sheep Industry

With the resignations of Dr. Buckley and Mr. McLaughlin in 1920, it was impossible to secure a livestock specialist for a number of months, and the work so promisingly begun was interrupted. With the appointment of Mr. G. H. Bedell in the fall of this year a critical condition confronted the sheep growers in the State who were unable to find a market for their wool at anything like adequate prices. This problem was of paramount importance at the time, and Mr. Bedell devoted practically his entire time to promoting a plan among farmers whereby they could have their wool converted into blankets and thus marketed at satisfactory prices. While this plan was urged solely as an emergency measure it has been found so satisfactory that it is still employed in a number of counties.

Mr. Bedell resigned in March, 1921, and was succeeded by the present specialist, Mr. B. E. Carmichael, whose appointment was effective in July, 1921. The work started by previous specialists has been continued successfully by Mr. Carmichael.

It is unquestionably true that the livestock problem in the State during recent years has been complicated by the economic conditions imposed by the war. Violent fluctuations in prices of feeds and of animals and animal products have occurred and have exerted an unfavorable influence upon the Maryland animal industry. As a result farmers have been uncertain in their policy toward livestock husbandry.

A steady progress, however, has been made. Boys' club work has been responsible for the introduction and distribution of many high-grade purebred swine, and in some localities, at least, the influence of this work is shown in the predominance of certain breed types and the relatively large number of purebred animals. The use of green forage crops and legume hay in the rations for hogs has become more

general; better housing conditions are noted, and sanitation is better understood and more frequently provided.

Improvements likewise have been effected in the sheep industry. Numerous purebred animals have been introduced into the State. Considerable attention has been given to the production of early lambs and this phase of the industry has been profitably developed in certain sections. Wool pools have been successfully conducted in many counties, while the cooperative marketing of lambs has been undertaken successfully in several counties.

Beef Cattle

Beef cattle continue to be fed in considerable numbers on many farms of the State and the Extension Service has been able to assist in advising regarding suitable feeds for economical production. In some counties help has been given in the purchase of feeding cattle, while in others the use of concentrates has been made more general by encouraging growers to purchase such feed cooperatively.

During the 10 years since its organization the Extension Service has aided greatly in combating animal diseases. It has worked with the other agencies in disseminating information relative to the spread and control of animal diseases and has assisted in many demonstrations that had for their object a reduction of the losses due to preventable diseases.

In supplying judges for livestock at fairs, county exhibits and community shows, the Extension Service has contributed much to an increased interest in better farm animals. Through its help and assistance, thousands of purebred animals have been selected and introduced to the farms of Maryland. It has been encouraged and assisted in the organization of such livestock associations as the Maryland Sheep Growers' Association and the Maryland Swine Growers' Association, and has helped promote the annual conference of Breeders and Feeders of Beef Cattle. Dr. DeVoe Meade and Mr. K. A. Clark, of the College Department as part-time specialists, have greatly assisted in various phases of livestock work as their time permitted.

DAIRY INDUSTRY

Perhaps a greater advancement has been made in the Dairy industry in Maryland during the past 10 years than in any other major agricultural industry in the State.

This is partially due to the development during and following the war period. During this period—1917—cost of production ran very high, but for a time the price of milk remained on a pre-war basis. The very wide disparity between costs of production and returns forced the dairy farmers of the State into cooperative marketing of their product in an

effort to secure, through organization, better standards and better distribution, a more reasonable return for their product. This condition brought forth the Maryland State Dairymen's Association, serving Baltimore City; the Maryland-Virginia Milk Producers' Association, serving Washington City and encouraged the producers of the Eastern Shore to join the Inter-State Milk Producers' Association, serving Philadelphia. These associations brought about increased prices for the raw product.

Following the war period and the general slump in agriculture, principally in cereals, livestock, etc., it was the dairy industry that saved many farmers in our State from bankruptcy and also served to lead many into the industry, as it has been more profitable than any other branch of agriculture during the past three years. The large increase in the production of milk during the past 10 years, not only in Maryland, but in other part of the country, has given the Cooperative Association a severe test to manage the situation.

Fortunately in this State the industry has been enabled to weather the so-called storm of large increase in production with small returns. This problem has reacted, however, into placing emphasis upon more economical production, and thus good progress has been made in the elimination of the boarder cow. It has likewise encouraged better unit production per cow, stimulated interest in better sires and in cow testing association work, and has brought about an improvement in the production, handling and shipping of milk. The situation has also encouraged the importation, breeding and development of a large number of purebred dairy cattle in the several breeds that are common to the State.

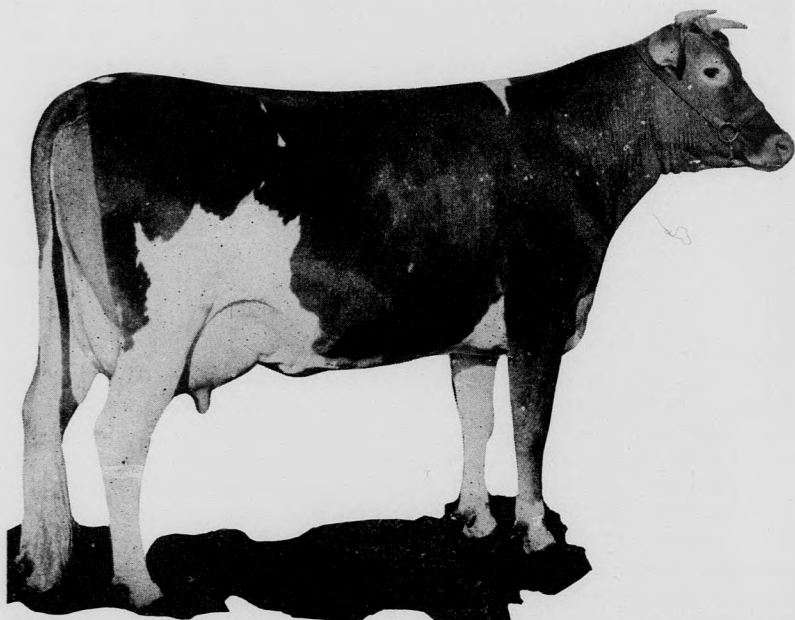
Cow Testing Associations

Every effort has been made by the service to develop cow testing associations, as it is believed that, through the operation of these organizations, groups of dairymen will be continually stimulated, in the use of purebred bulls, better and more economical feeding rations and rotation of dairy crops, and finally to the better care of their dairy animals, thus lowering the costs on the production of a high quality milk. During the 10 years the specialists have developed the work until at the present time there are 11 active associations with good testers in charge and a demand for developing additional associations in other dairy centers of the State.

Better Sires Campaign

For several years active efforts have been made to induce our dairymen to eliminate the scrub bull or low grade sire. It is, however, only during the past three years that a special drive has been made in this direction by the specialists, agents,

breeders and general dairymen. The advancement of the Boys' Calf Club Work has served to increase interest in purebred and better grade cattle. More than 200 purebred bulls have been placed on farms this past year through the efforts



PROCRIIS SNOWDROP 120156, WITH 15,487.7 POUNDS OF BUTTER AND 822.17 POUNDS OF BUTTER FAT, WAS A WORLD CHAMPION AT TWO YEARS OLD

of the Extension Service. The cooperation of the Bureau of Dairying of the U. S. Department of Agriculture, by the loan of bulls and otherwise assisting in promoting the better sires campaign, has been most helpful.

A number of purebred bull sales have been held in the State which have served to increase interest in this project. It is believed that one of the most profitable means of promoting economical production of milk and increasing the average production per cow is the elimination of the scrub bull.

Legumes and Feed Schools

In an effort to develop interest in proper feeding rations and the growing of more legume crops for dairy feed a plan was devised by the specialists in agronomy and dairy husbandry to hold a series of schools in the dairy counties for the purpose of giving practical lessons in these subjects. About 80 Extension schools were held in the winter and spring of

1924. In addition to discussing proper rations, the value and economy of the legume crops, and their importance in adding protein to the ration and in lowering the cost of milk production was presented. Along with these subjects the proper care and management of the herd was also taken up. In the discussion of legume crops the specialists thoroughly presented the importance of soybeans. The clover situation, from the standpoint of foreign seed, alfalfa, sweet clover, lespedeza, alsike, cowpeas and other legumes, was discussed in like manner, as was also the importance of lime as relating to the growing of these crops.

Neutral Testing Laboratory

The inauguration of this system of Extension schools is cited, as they have demonstrated their value in assisting the farmers to a better understanding of feeding problems and the importance the legumes play in the economy of production and the use, so far as possible, of home grown feeds.

In 1920 a neutral laboratory for the collection and analyzing of milk from all sources coming into Baltimore was established. Thus milk is now sold upon a butterfat basis. The Laboratory Board consists of one member appointed by the distributors of Baltimore, a second by the Producers' Association and a third to be chosen by these representatives. The head of our Dairy Department has served as chairman of the board since its establishment. During the past five years a total of 320,000 milk and cream samples have been collected and analyzed from the Baltimore supply under the control of the Laboratory Board. This neutral testing service continues to be a source of pride to both the producers and the dealers in that market and has resulted in market information not otherwise obtainable. The testing service now has the confidence of a very large majority of the producers and dealers operating in that market. Neither group would now consider the former plan under which the distributors did the testing for butterfat.

Advanced Registry Service

Considerable progress has been made by the Dairy Department in advanced registry work during the past few years. This service is carried on with breeders of purebred cattle and by this means the high producing stock in the purebred herds in different parts of the State are located and the general promotion of such stock throughout the State thereby hastened. In order to encourage better breeding among dairy-men generally a news letter is published monthly, citing the number of animals of the different breeds on test, the records being made by the individuals and other information of interest to breeders of purebred dairy cattle.

Dairy Marketing Summary

Evidence that the hard work put into cooperative dairy marketing organization by Extension workers of this institution is now bearing fruit can be seen. It is safe to say that our dairymen organized into market groups are beginning to understand some of the problems which underlie the successful cooperative marketing of dairy products. They are discovering that the production of milk of high quality, that can be sold at a profit in competition, is a major factor in dairy success and that there are as well transportation, distribution and surplus problems that call for real efforts along sound lines if they are to be solved. The fact that producers and dealers in our three market groups now meet at stated intervals to discuss the milk situation from its several angles is meaning a better realization on the part of the dairymen as to the importance of quality and the orderly marketing of their milk and cream. Dealers have learned first hand the problems of the producers as to costs of feed, labor, etc. With the true facts continuously before the combined group of producers and distributors, helpful reactions have resulted. Knowledge of milk-marketing facts has also given the leaders in the organized market groups confidence and a growing ability to cope with future problems related to the cooperative marketing of dairy products in Maryland. It is realized by all, as never before, that successful dairy organization is not a smoke screen behind which inefficiency in production and unsound practices may successfully hide.

While the organization of our dairymen on a market basis has become a reality, future results will perhaps very largely depend upon whether or not the organizations are able to make the members see and do those things which will make for better quality, economic production, better handling and transportation. Certainly, each of our organized groups has now at its disposal a service system capable of serving not only themselves, but distributors and consumers as well.

There is no doubt that the organization of the dairymen and the progressive steps that have been taken by the industry during the past seven years have added millions of dollars to the value of dairy products without a comparable increase to the consumer. The market has been stabilized as far as possible and the producers are in position to meet future problems.

The Extension Service is proud of its accomplishment in the dairy field. True it has not done nearly as much as it should have desired on account of limited funds and personnel. However, the total cost of the service has no doubt been fully repaid to the State in the service it has rendered the dairy industry alone.

Mr. G. E. Wolcott was first appointed dairy specialist in 1914, having been previously engaged in this work by the Experiment Station. Mr. Wolcott resigned in 1921, and Mr. J. A. Conover has been carrying on this work for the Service since that date. Prof. J. A. Gamble was appointed head of the College Dairy Department in 1920. He has also served as part-time specialist and aided greatly in the assistance the University as a whole has extended to the dairymen in bringing about the present desirable conditions in this industry.

POULTRY

Because of its wide distribution and the fact that it supplies a dependable source of income on many farms, the poultry industry occupies an important and valuable place in the agriculture of the State. Poultry are maintained on something more than 95 per cent of the farms of the State, and the annual value of poultry and eggs produced is above ten and a half million dollars.

While it is a well recognized fact that Maryland offers many advantages for successful poultry raising, few other farm enterprises have shown a greater need for a better understanding of the essentials of production and improved methods of management. During recent years, particularly when there was an evident tendency to expand the poultry industry of the State because of the relatively good market prevailing for poultry and eggs, the need for adequate information has been manifest.

The program of the Extension Service, therefore, has been directed primarily to the problems of production. To both commercial producers and the owners of farm flocks it has supplied information designed to improve methods of hatching, methods of brooding, feeding practices, housing, sanitation, egg production and marketing. Dissemination of this information through farm demonstrations and in numerous other ways has thus opened up the way for a gradual expansion of the industry on a sound footing.

Extension work in poultry was begun June 30, 1914, soon after the establishment of the Extension Service, with the appointment of C. L. Opperman as part-time specialist. The needs in the State at that time centered about the problems of housing, feeding, incubation and marketing. Movable schools seemed to offer the best means of reaching the poultry raisers of the State and these were held during the first year in many counties and were highly successful.

In 1917 Mr. H. W. Rickey assumed the duties of full-time specialist in poultry. Under the direction of Mr. Rickey movable schools were continued and increased in number and hundreds of poultry raisers throughout the State were reached

effectively through the instruction given at these schools. In addition to the schools, however, Mr. Rickey instituted numerous demonstrations in winter egg production. Very largely these demonstrations were carried on in cooperation with the owners of farm flocks, who kept careful records of egg production and feed costs during the winter months. Through these demonstrations poultry raisers were given practical experience in putting into effect proper methods of management. Such factors as housing, feeding, early hatching, etc., were thus brought to the attention of the demonstrators through observations in their own flocks.

Poultry Club Work

During this period boys and girls were interested in poultry production and clubs were organized in many communities of the State to demonstrate the practices recommended by the Extension Service. These clubs had a marked influence in increasing the interest in proper poultry management in their respective communities and likewise served to introduce pure-bred poultry to many sections of the State.

The growing interest in poultry club work in the State resulted in 1918 in the assignment of Mr. G. W. Post, of the United States Department of Agriculture, to Maryland to devote his efforts to this line of work. The number of poultry clubs increased rapidly and the other phases of the work greatly increased the demands upon the Service.

In the fall of 1921 Mr. Rickey resigned and it was impossible to fill his place until October, 1923, when Mr. W. H. Rice was secured as poultry specialist. While the work in the State was necessarily handicapped somewhat by the inability to secure a specialist, Mr. R. H. Waite and other members of the Experiment Station staff responded to numerous emergency calls and devoted as much time as their other duties would permit to prosecuting the work in the State.

Expansion of the Industry in the State

There has been a very striking development of the poultry work in Maryland during the past few years and interest in the efficient production of poultry and eggs has been greatly stimulated. Culling demonstrations have been held in practically every county of the State and have served to center the attention of poultrymen on the importance of maintaining only high-producing hens. Actual records on pens of selected and culled fowls given the same care and attention have served to emphasize the practical advantages of culling and the importance of economical egg production.

In 1923 the poultry club work in the State was further stimulated by the distribution of egg settings by the Baltimore and Ohio Railroad Company to boys and girls living in counties traversed by the company's lines. The eggs were from purebred fowls and were supplied in sufficient quantities to enable club members to get started with a flock of reasonable size. This work has been continued and has assisted in improving the quality of poultry in many communities in addition to establishing club members as breeders of purebred fowls.

Egg Marketing Organization

In 1923 the first really important cooperative marketing agency for eggs was established in Maryland with the organization of a State membership in the Atlantic Coast Poultry Producers' Association. This organization which had been in operation on the New York market offered an opportunity for Maryland poultrymen who desired to sell in this market. Membership in it was urged by the Maryland Farm Bureau Federation, and the Extension Service aided whenever possible in acquainting poultrymen with the aims and purposes of the organization.

The growth of the poultry industry in the State increases the necessity for careful and efficient management. It has likewise given rise to new needs and new problems that must be encountered from time to time by the Extension Service. In response to demands for improved marketing agencies for poultry products in the State, the Extension Service was able to supply valuable information regarding the selling methods on the Baltimore market. In many instances the Extension Service has taken the initiative and has helped producers of poultry and eggs to find better markets or to follow practices that resulted in higher prices. In Dorchester county, for instance, poultry producers were induced to undertake a co-operative shipment of poultry. This served as a demonstration in grading and packing of dressed poultry and at the same time showed the advantages of cooperation. The undertaking was responsible for better prices to the producers and paved the way for similar enterprises throughout the State.

In addition to meeting the needs for new services, the Extension Service is constantly receiving requests from poultrymen throughout the State for advice and assistance on individual problems of housing, breeding, management, or some other phase of the industry. Exhibits of poultry at community shows and at county and State fairs are increasing in

number and the Extension Service is being called upon to supply judges and to render other services in this connection more frequently than ever before. The growing demand for the work, however, indicates that it is being better understood and more generally appreciated.

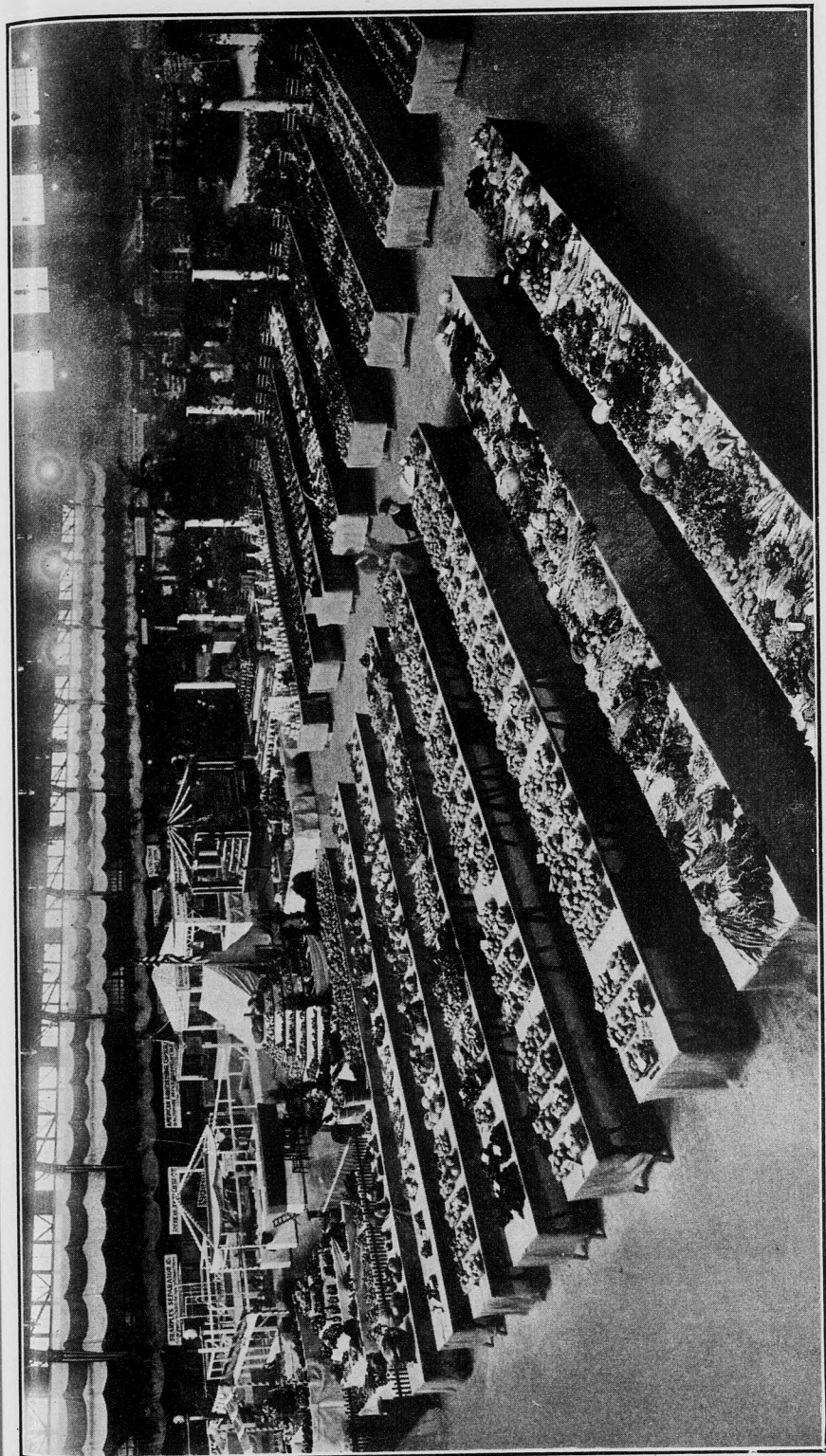
RURAL ORGANIZATION AND MARKETING

Perhaps in no other field has the Extension Service been more useful to the agriculture of the State during the past ten years of its history than in its relation to rural organization and marketing. The work was begun in July, 1915, as a definite project of the Extension Service, with Dr. F. B. Bomberger and Prof. C. S. Richardson appointed on a part-time basis and devoting their efforts to promoting rural organizations.

Some work had been done prior to this time and the foundation had been laid for the subsequent development of rural organizations. There were in the State at the time a number of well established farmers' clubs, four state-wide educational organizations representing farming interests, and the Maryland State Grange. The latter organization had held a place of influence for many years and at this time represented ten Pomona or County Granges and sixty-nine subordinate or local Granges.

None of these organizations, however, provided for a state-wide federation of agricultural or rural community organizations, and consequently there was no consolidation of agricultural and rural interests, such as was later achieved. Not a county in the State had anything approximating a county-wide federation of all types of community organizations and not one rural community in five had any active community organization. Furthermore, there was not a single important cooperative marketing organization in the State and practically no cooperative purchasing agencies, even in local communities.

During 1915 and 1916, Dr. Bomberger continued with the Extension Service on a part-time basis and directed the work in rural organization. In 1917 he was made assistant director and specialist in rural organization and marketing, and from that time until the present has devoted his entire time to promoting the work in rural organization and marketing throughout the State. The progress that has been made in this field of effort has been of inestimable value to the agriculture of the State. It has resulted in bringing the rural people of the State together in local, county and state associations where problems of agriculture and rural life might be considered and solved through united effort. It has brought about coopera-



SPLendid VEGETABLE EXHIBIT AT MARYLAND WEEK SHOW

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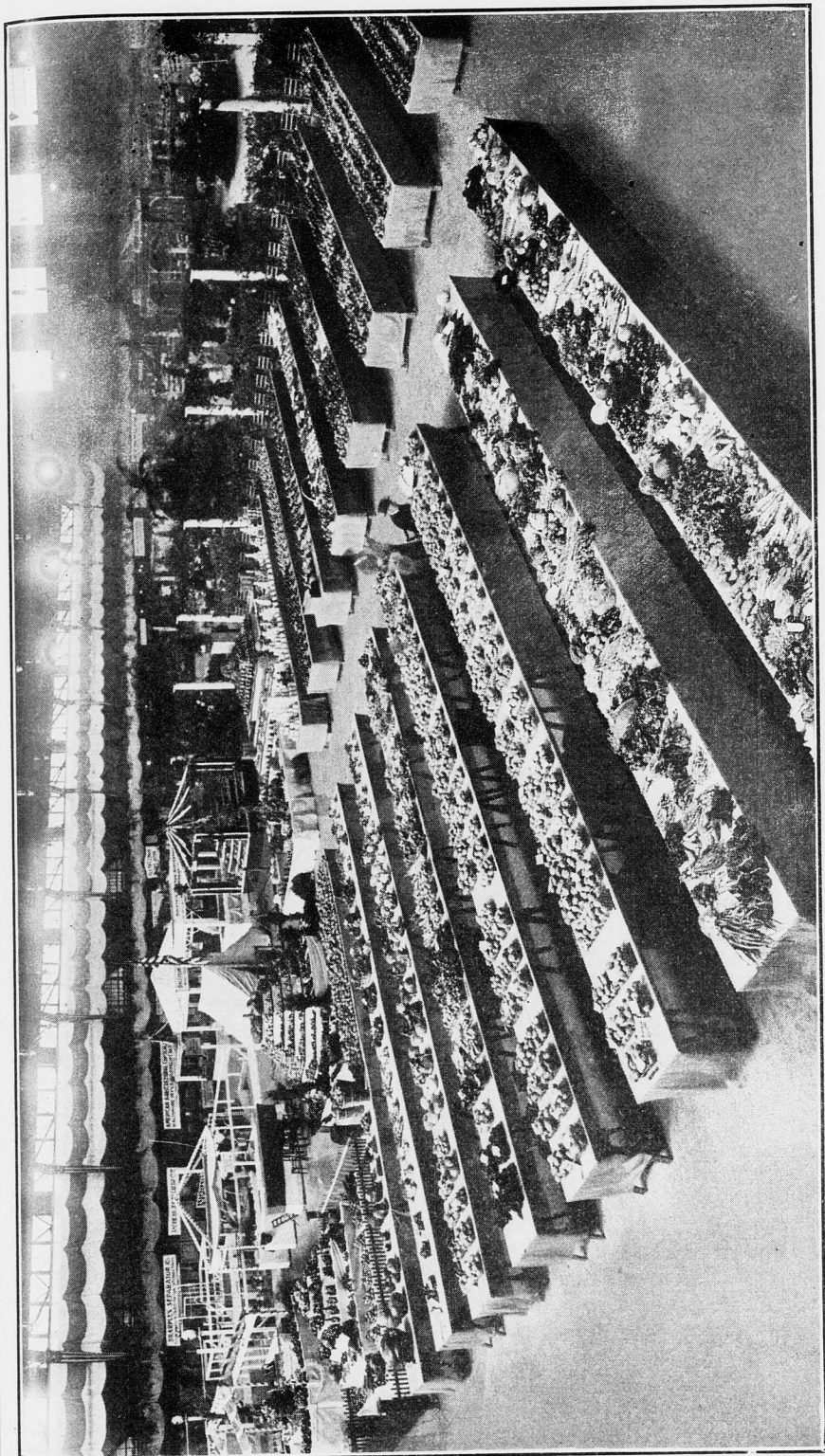
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Some work had been done prior to this time and the foundation had been laid for the subsequent development of rural organizations. There were in the State at the time a number of well established farmers' clubs, four state-wide educational organizations representing farming interests, and the Maryland State Grange. The latter organization had held a place of influence for many years and at this time represented ten Pomona or County Granges and sixty-nine subordinate or local Granges.

None of these organizations, however, provided for a state-wide federation of agricultural or rural community organizations, and consequently there was no consolidation of agricultural and rural interests, such as was later achieved. Not a county in the State had anything approximating a county-wide federation of all types of community organizations and not one rural community in five had any active community organization. Furthermore, there was not a single important cooperative marketing organization in the State and practically no cooperative purchasing agencies, even in local communities.

During 1915 and 1916, Dr. Bomberger continued with the Extension Service on a part-time basis and directed the work in rural organization. In 1917 he was made assistant director and specialist in rural organization and marketing, and from that time until the present has devoted his entire time to promoting the work in rural organization and marketing throughout the State. The progress that has been made in this field of effort has been of inestimable value to the agriculture of the State. It has resulted in bringing the rural people of the State together in local, county and state associations where problems of agriculture and rural life might be considered and solved through united effort. It has brought about coopera-



SPLendid VEGETABLE EXHIBIT AT MARYLAND WEEK SHOW

tion for the marketing of many farm products and for the purchase of farm supplies and has greatly improved the financial situation in many sections. Furthermore, through organization, the farmers of Maryland have secured many important legislative provisions in the interests of agriculture.

Preliminary to outlining a program of work to be followed by the Extension Service, a survey was made of the existing rural organizations in the State and plans were formulated for uniting the various local community organizations of the respective counties into county federations or similar units into a state-wide organization representative of all parts of the State and of all its rural interests.

The Maryland Agricultural Society

It was in 1916, with the organization of the Maryland Agricultural Society, that the first progressive step was made in the direction of federating the agricultural and rural forces of the State. In the Maryland Agricultural Society, four previously formed organizations which had developed a community of interest in connection with the Maryland Week Exhibit in Baltimore, were united to promote certain mutual interests without discontinuing their separate activities. The organizations included were the Maryland State Horticultural Society, The Maryland Crop Improvement Association, the old Maryland Dairymen's Association, and the Maryland Beekeepers' Association.

Comparatively little in the way of organization, however, had been accomplished in the counties, although the groundwork for the subsequent development was gradually being laid. The formation of local and county organizations was somewhat delayed by the unsettled conditions incident to the World War, which diverted attention from these projects to more urgent emergency measures, such as food production and conservation campaigns, the Liberty Loan drives, the enforcement of the compulsory work law, etc. The work, however, was steadily pressed and more time was devoted to it during the next few years.

County Councils or Federations

At the close of 1919 there were in the State 400 local rural community organizations, including Granges, and in four counties federations of these local units had been effected. In December of that year the constitution of the Maryland Agricultural Society was amended to admit to membership the county councils or county-wide federations of the several counties and to give them representation in the Council of the Maryland Agricultural Society.

This action had a stimulating effect in the counties and encouraged the federation of community organizations to such an extent that 15 county federations were represented at the annual meeting of the Maryland Agricultural Society the following year. A continuation of the work during the next two years resulted in the formation of six additional county federations, and by the close of 1922 there were around four hundred active community organizations, including Granges, affiliated with 21 county federations, which in turn were affiliated with the Maryland Agricultural Society.

Meanwhile other important organization activities had been going forward that had a bearing on the development of the Maryland Agricultural Society. In 1918 both the Maryland Sheep Growers' Association and the Maryland Vegetable Growers' Association were organized and promptly affiliated with the Maryland Agricultural Society. In the same year the reorganization of the Maryland Dairymen's Association was effected and its affiliation with the Society was later renewed. In 1919 the Maryland Tobacco Growers' Association was formed and it, too, affiliated with the State body.

In 1920 the Maryland Agricultural Society was affiliated with the American Farm Bureau Federation. The organization thus developed in the State continued without change during the next two years, and by the latter part of 1922, the Maryland Agricultural Society was a state-wide association composed of seven other state-wide educational associations and twenty-one county federations. It was affiliated with the American Farm Bureau Federation and was on terms of cooperation with the National Board of Farm Organizations and the National Grange.

The Maryland Farm Bureau

During 1922, however, Farm Bureaus were organized in Washington, Frederick, Howard and Anne Arundel counties and these together with the Montgomery County Farm Bureau, previously formed, necessitated changes in the organization plan of the Maryland Agricultural Society. Consequently at the annual meeting of the Maryland Agricultural Society at Frederick in January, 1923, a reorganization of the Society was effected to constitute the Maryland Agricultural Society—the Maryland Farm Bureau Federation. Under the plan of reorganization, provision was made for the organization of local and county Farm Bureaus on a \$10.00 membership basis and for the continued affiliation of the state-wide educational associations formerly associated with the Maryland Agricultural Society.

Following the reorganization, the formation of local and county Farm Bureaus was actively promoted and by the end of the following year, 18 of the 23 counties of the State had

been organized on the Farm Bureau plan with an aggregate membership of approximately 7,000. In Allegany, Cecil, Somerset and Wicomico counties the existing county federations were retained, while in Garrett County, the County Grange functions as the county federation.

Farm Loan Associations

Another important phase of organization work undertaken by the Extension Service soon after it was established was in connection with the formation of the Farm Loan Associations, the units of the Federal Farm Loan system. Much educational work was necessary to explain the operation of this system to interested farmers of the State, and much effort was devoted to the establishment of the system in Maryland. Definite work in the interests of the Farm Loan system were begun in 1917, and were continued during succeeding years until 1921, when Farm Loan Associations had been established in all but one county of the State. These associations are now recognized parts of the State's agricultural machinery and have provided hundreds of farmers with credit facilities based upon easy and long-time payments.

Progress of Cooperative Marketing

The marked development of cooperative marketing in the State during the ten-year period, was begun in 1916 with the formation of the Western Maryland Seed Potato Growers' Association. At the time this was the only cooperative marketing association of any importance in the State.

The next important step in cooperative marketing was made in 1918, when milk market conditions in Baltimore led to the reorganization of the Maryland State Dairymen's Association. Plans for the reorganization of this association were prepared by the Extension Service in cooperation with the United States Department of Agriculture and the present Maryland State Dairymen's Association was organized to take the place of the educational association formerly existing. In connection with the reorganization of this association the Extension Service assisted in collecting and compiling figures on the cost of producing milk in Maryland and in other ways helped with the establishment and development of the organization. Today this association is marketing the milk of approximately 3,500 members and its annual sales run over \$6,500,000.

In 1919 the Maryland Tobacco Growers' Association was organized for the purpose of marketing cooperatively the tobacco grown by its members in the five counties of Southern Maryland and in several small districts of Frederick and Montgomery counties. Plans for this organization were prepared

with the assistance of the Extension Service and considerable help was given the association in the conduct of its membership campaign. While the Maryland Tobacco Growers' Association encountered many difficulties, it has developed steadily, and in 1924 was able to market 61 per cent of all tobacco received on the Baltimore market, approximating 19,760 hogsheads, valued at \$4,150,000. The association likewise purchased for its members supplies to the extent of \$177,000. All of this business was conducted on a margin of one per cent and the association now has 4,520 members.

In 1919 two smaller cooperative marketing enterprises were formed in the State. These were the Harford County Seed Corn Growers' Association, a cooperative organization for selling improved seed corn, and the Tri-State Sanitary Milk Company, of Cumberland, a cooperative association of milk producers organized for the retail distribution of milk.

In 1920 market conditions in Washington led to the reorganization of the Maryland and Virginia Milk Producers' Association. The Extension Service has devoted much time and effort to helping this association and, particularly in Frederick and Montgomery counties, has aided greatly with the marketing problems encountered. Many difficulties have surrounded the development of this organization and the Extension Service has constantly and willingly aided it in every possible way.

Conditions prevailing in the wool markets during 1920 made it imperative for some action to be taken to assist sheep growers of the State to dispose of their wool at adequate prices. Consequently the Extension Service advocated the pooling of the clip in each county and supported the wool-to-blanket plan of marketing. The wool-to-blanket plan proved highly successful and resulted in substantial financial benefit to many growers. It is still followed in a number of counties as a satisfactory method of marketing. The pooling of wool has likewise continued.

Efforts to stimulate interest in community or central packing houses for peaches and apples were made during 1922 and resulted in the establishment of several such plants in the principal fruit producing regions. While the development of these enterprises has not been pronounced, several of them have continued in operation and have given satisfaction to the growers concerned.

The first attempt to promote cooperative marketing among poultry producers was undertaken in 1922 when efforts were made to secure membership for the Atlantic Coast Poultry Producers' Association in Maryland. The Extension Service assisted in presenting the plan of marketing offered by this organization to the poultrymen of the State and a considerable membership was secured. Later, the Extension Service as-

sisted in effecting a satisfactory reorganization of the association as well as in devising plans for a cooperative marketing agency which the Farm Bureau is endeavoring to establish for owners of small farm flocks.

The establishment of a cooperative creamery at Waldorf to serve the people of Southern Maryland was a project of considerable importance in that territory and one which the Extension Service effectively supported. Considerable preliminary work was necessary and many meetings were held to inform producers how to produce and handle milk and cream properly. The creamery developed steadily from the date of its establishment, soon increased its facilities for handling cream, and is now operating successfully.

Numerous other developments in cooperative marketing have taken place in the State during the ten-year period. Among them may be mentioned the cooperative marketing of wheat in Washington and Frederick counties, the cooperative canning of tomatoes in Somerset and Dorchester counties, the cooperative marketing of cantaloupes in Wicomico County, cooperative marketing of soybean seed in Somerset county, the organization of growers of chenopodium or wormseed oil to market their crop, the cooperative marketing of early tomatoes by Talbot County growers, the cooperative marketing of the early potato crop through the Eastern Shore Produce Exchange, etc.

Throughout the ten-year period the Extension Service has rendered valuable assistance in conducting numerous surveys that have had a bearing on marketing problems in the State. The first of these surveys covered general marketing in Maryland and was made by Prof. P. F. Brookens of the Maryland State College. In 1918, the following year, Dr. T. B. Thompson, of the Department of Economics of the Maryland State College, conducted a survey covering the marketing of perishable farm crops in Baltimore City. In 1920 Mr. S. B. Shaw, Extension Specialist in Horticulture, made a marketing survey in Baltimore City and during the same year a bulletin on "Marketing Farm Products in Maryland" by Dr. Bomberger was published. In 1922 Dr. S. H. De Vault, assistant specialist in marketing, made a survey of conditions on the Baltimore commission market and a chart showing the present practices and proposed remedies in the marketing of principal farm products of Maryland was prepared and issued. A bulletin on the "Maryland Cooperative Association Law" was prepared by Dr. Bomberger during this year and was published by the Extension Service. In 1923 Dr. De Vault made a study of wheat marketing in Maryland and prepared a bulletin which was published. During the same year a survey of livestock marketing conditions in Baltimore was made by Dr. De Vault that supplied needed

information in the consideration of cooperative marketing plans. In 1924 Dr. De Vault conducted two surveys, one to supply information on the rural telephone situation, and the other to supply information regarding the proposed establishment of an egg marketing agency in Baltimore.

Progress of Cooperative Purchasing

There has been a steady and consistent development in cooperative purchasing in the State during the ten-year period. Many local and county cooperative purchasing organizations have been formed which have succeeded in saving substantial sums for their members. In many cases, these associations were adjuncts of county federations, while in other instances they have been formed to benefit farmers engaged in similar lines of production and who consequently have need for identical supplies. While the business thus conducted has not been tremendously large, the savings in many instances have been considerable and many of the enterprises are continued from year to year.

In 1921 an effort was made to develop a state-wide purchasing organization for the farmers of the State. The Agricultural Corporation of Maryland was organized as a stock company and an effort was made to sell stock to provide sufficient funds for starting capital. The plan was only partially successful at the outset. During the past two years, however, the corporation has made decided progress and has succeeded in clearing up a previously accumulated debt and in paying a dividend on its stock. In 1924 the corporation did business in excess of \$1,000,000. In addition, local and county associations during the same year did a business estimated at \$500,000. Plans have been made for the formation of County Farm Bureau Cooperative Associations which will serve as local units of the State purchasing organization, but this plan will be dependent upon changes yet to be effected in the organization of the Agricultural Corporation.

Shipping Point Inspection

The final development in marketing to be reported during the ten-year period is the establishment of shipping point inspection during the year 1924. The shipping point inspection was made possible by the appropriation of \$10,000 by the last legislature for marketing work. The establishment of a State Department of Markets, with Dr. Bomberger, as chief, was authorized in July, 1924, by the State Board of Agriculture. The State Department of Markets was erected in the Extension Service and the shipping point inspection is conducted by the former organization in cooperation with the United States Department of Agriculture.

While the work was undertaken at but three points, it proved eminently successful and was satisfactory to the growers. In all there were 421 cars of fruit inspected by our cooperative forces. Mr. S. B. Shaw was appointed as specialist and chief inspector October, 1924.

Seed Certification Board

With the development of seed supplies and the more general recognition by farmers of the economy in using the best of seed there has been need for some central agency in providing for adequate inspection and certification. As this involves the specialists in many subjects, there has been set up the Maryland Seed Certification Board, composed of representatives of the departments dealing with the crops concerned. This Board issues regulations covering the certification of seed potatoes and other crops.



A FIELD OF WHEAT GROWN FOR CERTIFICATION

PUBLICATIONS

The Smith-Lever Law limits the amount of the appropriation to be devoted to publications to five per cent. As such the dominant motive has been to devote as much money as possible to actual field work. Nevertheless, it has been necessary to issue various condensed bulletins on timely subjects for the promotion of several projects in the field.

It has been the aim of the Service to have such bulletins present an attractive appearance and so compiled as to be of greatest use to the people. There has also been need for other forms of publicity and information for various educational campaigns and regular news of the Service.

"The Farm Adviser," first issued in November, 1914, marked the advent of an information service. Reuben Brigham served as editor of the "Farm Adviser" and was in charge of Extension Service publications. In connection with the publication of the "Farm Adviser," which was designed mainly to be used as a clip sheet for newspapers, a column of plate matter was supplied to the newspapers of the State each week.

George F. Jordan was appointed as assistant in publicity July 15, 1917, and was the first full-time specialist in this work. Upon the resignation of Mr. Jordan in 1918, Mr. C. L. Opperman was appointed as agricultural editor and served until May, 1920. The present specialist, Mr. M. D. Bowers, was appointed in May, 1920. He edits the "Extension Service News" which succeeded the "Farm Adviser," and later the "State College Journal," as well as other official publications of the Service.

The Service and institution are indebted to the press of the State for its encouraging support and valuable assistance in the dissemination of agricultural information.

The local press has been an important factor in the progress and development of Extension Work in the various counties of the State.

For purposes of record the following bulletins, published by the Extension Service during the decade, are listed:

No. 1, Maryland Apple Grading and Packing Law; No. 2, The Relation of Lime to Agriculture (revised in 1920); No. 3, The Garden (first revision in 1918, second revision in 1922); Separate from Bulletin No. 3, Insects Affecting Fruits; No. 4, The Federal Farm Loan Act and the Farmer; No. 5, Garden Record Book; No. 6, What Maryland Farmer Boys and Girls Can Do to Help the Nation this Summer; No. 7, The Hessian Fly; No. 8 Insects and Rodents Injurious to Stored Products; No. 9, Electricity on the Farm; No. 10, Improving the School Grounds; No. 11, Control of Insects and Diseases of Fruits and Vegetables (first revision in 1919, second revision in 1922); No. 12, The Rural School Lunch; No. 13, Why We Can Foods; No. 14, The Periodical Cicada or Seventeen-Year Locust; No. 15, Milk Cost Survey; No. 16, Home Garden Record Book (revised in 1922); No. 17, Boys' Corn Club Lessons; No. 18, Maryland Invites You; No. 19, Boys' Potato Club Lessons; No. 20, Educational Extension; No. 21, Sewing Course for Club Members; No. 22, Marketing Farm Products in Maryland; No. 23, Garden Flowers; No. 24, Making Pigs Pay; No. 25, The Brood Sow and Her Litter (second edition in 1924); No. 26, The Cooperative Association Law of Maryland; No. 27, More Tomatoes from Fewer Acres; No. 28, Maryland Farm Statistics, 1923; No. 29, Standards for Seed and Show Corn; No. 30, The Marketing of Wheat in Maryland; No. 31, More Tomatoes from Fewer Acres; No. 32, Maryland Farm Statistics, 1924; No. 33, Cutting Production Costs with Farm Machinery; No. 34, More Vegetables from the Home Garden; No. 35, Culling for Efficient Egg Production; No. 36, Lambs and Wool for Market; No. 37, Winter Fattening of Steers.

REPORT OF THE COMMITTEE ON AN AGRICULTURAL PROGRAM

While the Extension Service has conducted its work from year to year in accordance with well designed programs which have been erected after consultation with the communities and county organizations, and finally by the county agents and specialists in each field, yet in 1923 there was a demand for the development of a broad and long-time program for the agricultural development of the State. Such a program was desired to cover legislation and other economic features needed by the farmers to aid the industry following the period of deflation and financial stringency which befell agriculture in 1920 following the World War.

The following is taken from the report of the committee and explains the reasons and motives that prompted an attempt to develop a long-time program for the State.

"In Maryland the agricultural situation was measurably better than in many other sections of the country. The agriculture of the State was sufficiently diversified to escape, in a measure, the hardships suffered by states where the one-crop system prevailed. In addition, the nearby markets afforded unusual opportunities for the relatively profitable production of emergency cash crops on many farms.

"The financial stringency throughout the agricultural sections of the State, however, was sufficiently acute to command the serious consideration not only of the farmers and those directly interested in the welfare of agriculture, but of those who were concerned with the general prosperity of the State and the promotion of a well balanced industrial and agricultural program. The restoration of prosperity to agriculture suddenly became everybody's business. The need for it was found in the need for a more prosperous industrial organism, an organism that could not be entirely sound so long as one of its vital units suffered.

"The farmers themselves were the first to rally in their own behalf. They sensed the need for a more potent organization of their forces, for a larger, stronger and more influential unit representing the agricultural interests of the State. This took form through the organization of county farm bureaus and the reorganization of the Maryland Agricultural Society into a State Farm Bureau Federation. They sought to protect and promote the welfare of their industry through cooperative effort and particularly to obtain for themselves the advantages of cooperative marketing.

"Following the initial steps in this direction, Governor Albert C. Ritchie, impressed with the importance of a prosperous agriculture to the welfare of the State as a whole, called a con-

ference in Annapolis, January 26, 1923, to consider what might be done in outlining a program looking to the stabilization of agriculture.

"Representatives of the Extension Service and other divisions of the University of Maryland, leaders of State and county farm organizations, representatives of rural women's clubs and others interested in the general agricultural situation were invited to Annapolis to take part in this conference.

"In greeting the members of this conference, the Governor pointed out the serious difficulties that had faced the farmers of the State and declared that he was ready to do anything in his power to aid in relieving the situation. The State he said, had adopted a general educational policy, a definite good roads program and had reorganized the various lines of State work in the interests of efficiency and economy. He felt, he continued, that some such concrete program, to which the State could commit itself, should be mapped out for agriculture. To the execution of such a program, he promised, he would commit himself and the State so far as lay in his power. The conference endorsed this suggestion and requested the Governor to appoint a committee to draft the program.

"The committee was appointed and was called by Governor Ritchie for its first meeting, held in the Union Trust Building, Baltimore, May 15, 1923. After outlining to the members of the committee his idea of its purpose, the Governor designated Mr. E. P. Cohill, President of the Maryland Agricultural Society—The Maryland Farm Bureau Federation, as temporary chairman. Later, the committee elected Mr. Cohill as its permanent chairman and Mr. M. M. Stewart as permanent secretary.

"After a general discussion of agricultural problems by various members of the committee, it was decided to appoint an executive committee of ten members to outline the essentials on which to base the committee's report. The executive committee held several meetings, determined the subjects for report and assigned them to sub-committees involving the entire membership of the Committee on an Agricultural program.

"The report was submitted under the following heads: General Organization of Farmers, Cooperative Marketing, Economical Production, Farm Labor, Farm Home, Transportation Facilities and Equalization of Freight Rates, Social and Educational Program, Legislation, Taxation Affecting Agriculture, Farm Tenancy, Maryland Forests, Maryland Water Power, Publicity."

The members of the Extension Service took an active part in assisting the various sub-committees in developing their

reports. The program proved helpful in directing the attention of the people of the State to the fundamental needs of agriculture, many of which were in the course of development by our educational forces.

NEGRO WORK

Agricultural extension work among negro farmers of the State was begun soon after the establishment of the Extension Service and while it has never been attempted on an extensive scale and has necessarily been limited by the funds available for its promotion, the results have been most gratifying in those sections where local agents have been continued on duty.

There are in the State of Maryland more than six thousand negro farmers. Something more than half of these, or 3,500, are farm owners. About 2,500 are tenants and a few are listed in the census report as farm managers. There are, of course, many other negroes in the State more or less intimately connected with agriculture in the capacity of farm laborers.

With the limited funds available for negro work, the object has been to maintain negro agents in those sections of the State where the greatest numbers of negro farmers might be reached and the greatest amount of good accomplished. Except during the war period, when the chief object was to stimulate production among all classes of agricultural workers and when additional negro agents were employed, the Extension Service has maintained but three agents in this particular line of endeavor.

In Southern Maryland, covering the counties of Calvert, Anne Arundel, St. Mary's, Charles and Prince George's, the work has been conducted by James F. Armstrong and Leah Woodson, the latter serving as home demonstration agent. On the Eastern Shore, Louis H. Martin has carried on the work chiefly in Somerset, Worcester and Wicomico counties.

It is realized that the territory assigned to these agents has been much too extensive for effective work in all of the counties and while they have rendered splendid services to the people of their race in widely scattered sections, the most telling results have been achieved in rather restricted areas.

The problems of the negro farmer in Maryland have, of course, included the usual need for better methods of agricultural production. In this particular field, however, the work has been complicated by the fact that the land owned or worked by the negro farmer is usually very low in fertility and that extensive plans for the improvement of soil fertility are impractical.

Improving Standards of Living

The major problem, however, has been to improve the standards of living of the negro farm family and this calls for education in all those factors which promote better living conditions as well as in the essentials that bring about improved economic conditions.

Many individual instances could be cited to show that Extension Work among negro farmers of the State has resulted in improved living conditions. New homes have been built to replace old ones, more adequate barns have been erected, purebred livestock have been introduced on many farms, efficient work animals have taken the place of those of inferior grade, crop production has been improved almost unbelievably in many cases, families have become more nearly self-sustaining and home conditions have been vastly improved.

With the beginning of the work, the need for organization was apparent in order to reach the people. The first efforts of the agents, therefore, were devoted to encouraging organization. Several types of organization were undertaken, such as community clubs, boys' and girls' clubs and associations designed to assist in special lines of work. Through the organizations the work of the Extension Service was made known.

Soil Demonstrations and Crop Rotations

With the beginning of the Extension Service Work, it was evident that there was little understanding among negro farmers of the essentials of soil improvement. The necessity for crop rotations was not appreciated and no very effective use was made of manure, fertilizers or lime. Soil demonstrations were planned to improve this condition and have resulted in a gradual increase of soil fertility. The value of good seed likewise has been stressed. Marked improvement in crop yields has been noted on many farms. On the Eastern Shore, for instance, yields of corn have been increased by one grower from 19 bushels per acre to 47. Another grower in three years raised his corn yield from 21 to 37 bushels. With sweet potatoes, the increase has likewise been noticeable. One grower produced 495 baskets of sweet potatoes on one and one-eighth acres of land as against a previous year's yield of 465 baskets. Another grower produced 363 baskets on land that yielded but 290 two years previously. In Southern Maryland, improved methods of corn production were employed last year by 75 negro farmers, fifteen growers used better methods of producing tobacco and several followed the recommendations of the agent in the production of hay and forage crops.

On many farms a better diversification of crops has been brought about as a result of the Extension Service Work. There has been a noticeable increase in the production of legumes, pasture lands have become more frequent and cover crops, such as rye, are being planted more often for soil improving purposes.

Home Work

In the work of making the negro farm family more nearly self-sustaining, the maintenance of a family cow, better methods of poultry production and improvement in swine production have been advocated and have brought most satisfactory results. On the Eastern Shore, breeding to purebred sires has greatly improved the quality of dairy animals owned by negro farmers. In some communities where previously three scrub cows, producing from three to seven quarts of milk daily, were maintained, there now are as many as 15 family cows each producing from two to three gallons per milking. Many of the families have all the milk needed for the children and are able to sell butter in addition.

There are numerous instances of purebred flocks of chickens which have been established as a result of Extension Service Work and vast improvement has been made in poultry sanitation, feeding and housing. Packing eggs for winter use has been demonstrated and in one section 667 dozens of eggs were preserved in water glass and later used while fresh eggs were sold at prices ranging from 50 to 60 cents per dozen.

The raising of hogs, especially for home consumption, has been greatly stimulated as a result of the Extension Service Work among negro farmers. Information on proper methods of sanitation has had much to do with increasing the number of swine produced as better sanitary conditions have decreased the losses from hog cholera. Purebred animals have been acquired on many farms and better methods of management have made production more economical.

An important feature of the work has been the organized effort in several localities to prevent and control hog cholera. In the Eastern Shore section it has been estimated that more than \$40,000 has been saved for negro farm owners through the efforts of demonstrators who were taught how to administer the serum treatment for hog cholera. In one community all hogs are treated each year. In Southern Maryland similar demonstrations in inoculating hogs against cholera have greatly reduced losses from the disease.

The boys' and girls' clubs have been important features of the negro work. Through club members, many purebred animals have been introduced and many improved methods of crop production have been demonstrated. In addition the

boys and girls have received valuable training and have been prepared for better and more useful lives. In Southern Maryland 327 club members were enrolled in club work the past year while on the Eastern Shore the enrollment numbered 200.

MISCELLANEOUS AND GENERAL EXTENSION WORK

In order to conserve space it seems desirable to combine the discussion of several minor projects under this head.

Landscape Gardening

Throughout the ten-year period there has been a demand for assistance in landscape gardening.

In 1915, Mr. B. W. Anspen, the specialist in landscape gardening, began preparing landscape plans for State and County institutions, school grounds, farm home grounds and other similar demonstrations. This work has been continued by Mr. W. R. Ballard, the present specialist. The work in this field became so heavy that it has required the whole time of a specialist in cooperation with the agents throughout the period. During later years we have combined this work with vegetable culture, but only limited finances forced this combination. We have felt it a fine thing to encourage all of our people to beautify their home surroundings. Nothing is more attractive than to see a farm home, a school house, or a public building suitably surrounded by native shrubs and flowers. Any number of regular blueprint plans have been prepared by the specialist which have served as demonstrations in a community to encourage the proper location and plantings of trees, shrubs and flowers at various places in the State.

The demand for these layouts of general plans is more than the specialist can meet.

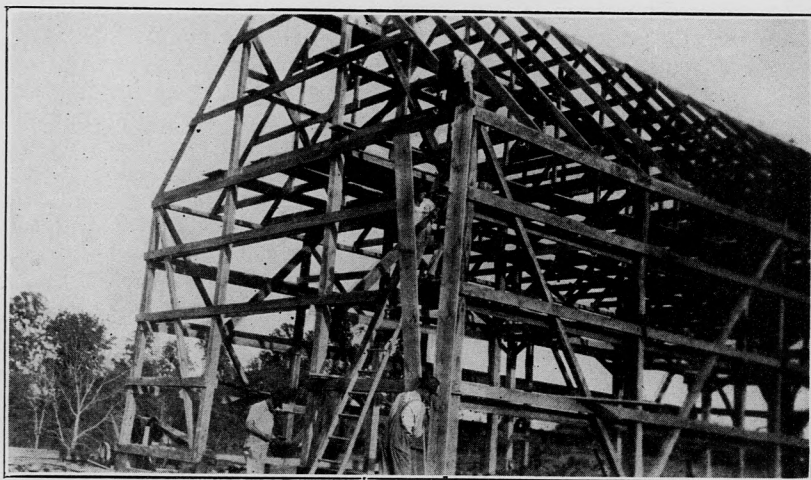
Agricultural Engineering

In May, 1918, Mr. F. A. Wirt was appointed specialist in farm machinery. The demands of the war period and the advance in the use of farm machinery, farm tractors, etc., made this step necessary. Prior to that time all forces of the institution were called upon to aid in meeting requests for assistance in this work. War conditions and the shortage of farm labor greatly emphasized the need of labor-saving machinery. It was fortunate that the Service was financially able to inaugurate this work at that time when it was particularly needed. As a result of the specialist's efforts, in cooperation with the county agents, the service established a record for such a short period of activity in demonstrating

the use of power machinery, in promoting cooperation between implement manufactures, dealers and farmers, and rendering service to the owners of tractors and other kinds of power machinery.

Tractor demonstrations using different makes were conducted at various points in the State. Tractor schools were held in 11 county seats where the principles of operation, adjustment and troubles were discussed and details of machine operation given those in attendance over a three-day period.

In 1920, the slump in agriculture caused a severe drop in the interest in tractors and other farm machinery to some extent. The specialist resigned to enter commercial work and the service has only had the assistance of a part-time specialist since that date.



PLANS FOR TOBACCO BARN FURNISHED A NUMBER OF GROWERS

The primary work in this field since that date has been in farm drainage work and farm buildings. The present specialist, Mr. R. W. Carpenter, has conducted many demonstrations in drainage and prepared a large number of building plans for barns and other farm buildings. An unusually terrific wind storm struck part of Southern Maryland in the summer of 1924, causing the destruction of nearly two hundred tobacco and other farm barns. A specially planned tobacco barn was designed by the County Agent of Prince George's in cooperation with the specialist of the Extension Service and the U. S. Department of Agriculture. These plans have been in large demand in the construction of barns to replace those destroyed by the wind storm.

There is a large field for Extension Work in farm machinery and agricultural engineering and it is hoped that we can in the future employ at least one full-time specialist to work with the agents on the project.

General Education Extension

Correspondence Courses. As early as 1915, an attempt was made to develop a phase of education Extension through correspondence courses. That year eighteen courses, treating of various phases of agriculture, were offered to the public of the State. The courses were designed for those who wished especially to prepare themselves for pursuing any particular phase of agriculture and allied industries, but could not leave their home or their present occupation to go to college or even take a short course. About 56 students were enrolled the first year the courses were offered.

The correspondence work is still offered to a limited degree but lack of funds and the inability to provide for the proper examination of lessons as well as the preparation of courses has prevented any great development in this field of effort. The opportunity is still before us although the demand will no doubt be lessened in the future by the opportunity to give such work over the radio.

In 1919 there was a demand and a request from the U. S. Bureau of Education to develop other phases of Educational Extension Work. This included the High School Public Discussion League, general lectures and motion pictures. It was at this time that the president adopted the policy that all Extension Work of the Institution in addition to that of agriculture and home economics should be conducted under the auspices of the Extension Service. This provided that all Extension activities of the University be coordinated, thus promoting efficiency and economy. All work under the general heading of Educational Extension has, therefore, been conducted by Prof. C. S. Richardson, who has served as part-time specialist in this field.

In the development of this work a large number of educational films are distributed annually. For instance, more than 300 films were exhibited to 26,000 persons last year. This work is conducted in cooperation with the U. S. Department of Agriculture and the other government departments so that while the service has been able to purchase only a limited number of films, through these agencies we have distributed a large number for the use of the farmers and community organizations.

Lectures. Many representatives of the University have assisted by delivering lectures at various meetings in the State. It is often difficult to meet the demand for lectures on various topics for the various organizations in the State.

High School Public Discussion League. The formation of the High School Public Discussion League was perfected by the Extension Service in cooperation with the State Department of Education and the Public School authorities of the counties in 1920. Any commissioned or certified high school of Maryland is eligible to membership. The work of the League has proven a valuable and popular means of developing interest in public speaking and in the open discussion of public questions among high school students of the State. The first year debates were held in 15 high schools. Last year, 1924, debates were held by students in 89 high schools, covering 16 counties of the State. The increase in interest in the work of the league has been very noticeable during the past year. Package libraries containing exhaustive data on the subject selected for debate are furnished all debaters. Appropriate medals are awarded winning teams at the conclusion of the year.

Movable Schools and Farmers' Institutes

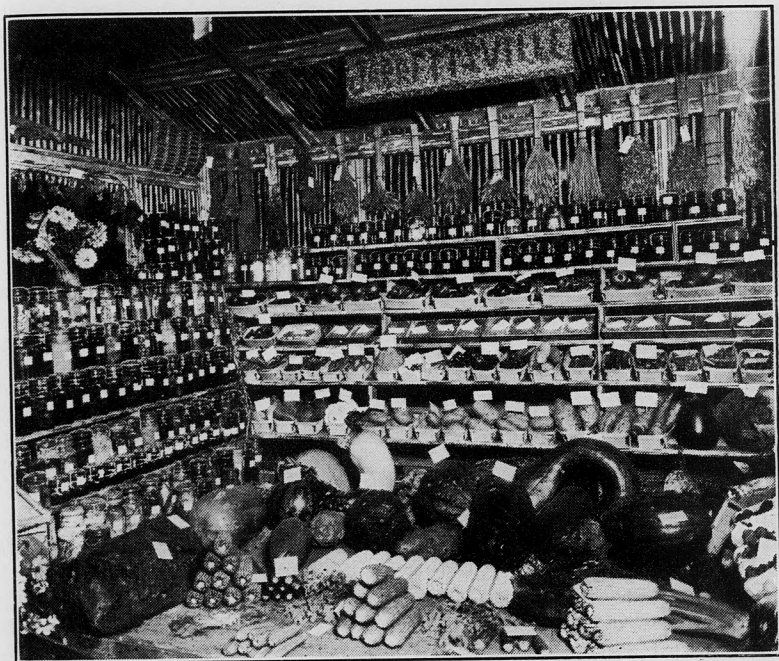
For many years prior to the establishment of the Extension Service, Farmers' Institutes had been conducted very successfully in the State. The holding of regular Farmers' Institutes has been continued until only recently. With the formation, first of community organizations and later of the Farm Bureau Locals and the holding of many group and community meetings of farmers for educational purposes, there has been a gradual decline in the requests for Institutes. As late as 1919, a total of 173 institutes were held with an attendance of 18,284 farmers and home makers. Practically since the formation of the Service the Institute Work has been conducted under its auspices.

In 1918, the legislature discontinued specific appropriation for the conduct of institutes. Since that time the holding of movable schools, one day and evening meetings have been increased largely by the need of local organizations holding regular meetings and the desire of the county agents to emphasize a particular project by putting on a series of meetings over the county or district with the usual attendance of the specialists and the use of films. There is actually a 500% increase in the number of meetings of farmers in the State today over the number held in the early days of Farmers' Institutes. There is also a growing tendency to develop more extensive work through the holding of schools or community short courses.

Exhibits and Demonstrations at Fairs

From the beginning of the Extension Service Work there has been a demand for various educational exhibits at State, county and community fairs. Every effort has been made with

our limited funds to do something to meet such requests. An appropriation of \$10,000 has been requested from the legislature to set up a department of exhibits to cooperate with the county fairs. The service has cooperated with the Maryland Agricultural Society in the promotion of local community exhibits.



COMMUNITY BOOTHS ARE FEATURES AT MANY AGRICULTURAL SHOWS AND FAIRS

In 1920 at the request of the officials of the Timonium Fair the Service and University as a whole cooperated in making a rather comprehensive exhibit at the fair. This was largely financed by the fair. The State judging contests in livestock and dairying by the boys' clubs throughout the State were staged during the fair. The winners then competed in National contests and this effort was the means of our boys winning international fame. The service has received the utmost cooperation from all fair organizations and it has been a source of regret that we have not had sufficient funds to participate adequately in this effective means of disseminating information.

Land Opportunities

With the passing of the State Immigration Commission in 1916 by legislative enactment and the placing of agricultural work and agencies under the State Board of Agriculture it fell to the Extension Service to handle a large amount of correspondence from persons seeking information about the agricultural possibilities of the State. Until the creation of the Southern Maryland Immigration Commission in 1922 all of the work of encouraging immigration into the State was done by the service. Lists of farms offered for sale have been prepared by the county agents and issued from the State office. Innumerable inquiries have been answered, and every effort made to advertise the State at national shows. Since the inauguration of the Southern Maryland Immigration Commission's Work the Service has cooperated closely in the making of a large number of exhibits throughout the country and otherwise assisted where possible in the location of desirable immigrants in the State.

Relations with U. S. Department of Agriculture and Other Divisions of Institution

After a proper understanding of the projects and methods of procedure with the U. S. Department officials in 1917 the relations in the conduct of Extension Work in cooperation with the U. S. Department of Agriculture have been most harmonious and sympathetic. Every assistance has been rendered by the department officials and specialists to promote our work in Maryland. Likewise the relations with our divisions such as the Experiment Station and other Departments of the University have been cordial and cooperative. Every effort has been made to co-ordinate the work of all the departments of the University in the Extension Field. In many lines of work there are inevitable twilight zones and it is only through a sympathetic understanding and the desire to see the job done that splendid harmony has been maintained notwithstanding the large number of points of contact.

Conclusion

It is realized that this attempt to summarize the work of the Extension Service for its first decade is inadequate. It was the ambition of the writer to prepare a very careful analysis of the results of this new form of public service in agricultural and home economic education. Lack of time and pressure of duties have prevented what was really desired. However, with the assistance of my associates and especially Mr. M. D. Bowers, specialist in journalism, there is here presented a general account of the remarkable progress that has been made in Extension education since its regular inauguration in the State in 1914.

The policy of the Service has always been first to provide properly for maintaining the county agents and home demonstration agents in the counties. We have thus maintained a full field force in the counties since 1917 with the exception of four counties which have not provided for home demonstration agents. This accomplishment we consider is sufficient testimony to the manner in which the work is received and supported by the people of the State. No state agency could have had a more sympathetic and better financial support from the county boards of commissioners than this Service. Notwithstanding the economic stress of recent times affecting agriculture, there has been a yearly increase in the total of county appropriations.

There will follow a brief summary of the progress of Extension Work by counties that has been hurriedly prepared from the reports of the agents and specialists. Space forbids giving details but sufficient is cited, it is believed, to give any one a general idea of the projects that have been carried on by the agents and specialists and the substantial progress that has been made in building a firm foundation for improving the agricultural practices in production and marketing and at the same time improving the fertility of the soil, the county or State's greatest resource.

It is impossible for the writer to express his indebtedness to the Board of Regents and to Dr. H. J. Patterson who was president of the institution during the first three years of launching the Extension Service Work in Maryland. It was during those years that many perplexing matters of policy came up for decision. The sympathetic action of the board and president during this time permitted the establishment of certain policies that are now being adopted throughout the country. In President A. F. Woods, we have an executive who from the beginning of his administration seven years ago has shown unusual interest and sympathy in the development of the Extension Service. The present state of efficiency in the staff and work of the Service has been due to the continuation of a stable and yet progressive policy in administering the work. The accomplishments in the ten-year summary of Extension Work could not have been possible without the loyal and earnest devotion to duty of all members of the force, both men and women, and especially do I wish to acknowledge the splendid work of Miss Venia M. Kellar who, in serving as State Home Demonstration Agent for the past eight years, has assisted in developing the girls' and women's work and the able assistance and wise counsel of Dr. F. B. Bomberger who has served as Assistant Director of the Service during the past eight years. We are also under many obligations to the officials in charge of Extension Work in the U. S. Department

of Agriculture during this ten-year period. In every way the department has aided the State and made it possible, through the granting of supplementary funds to develop the work to its present State.

The future for the further development of Extension Work in Maryland is bright. Earnest men and women are devoting their lives to serving the people of the State and it is believed that in proportion that this service is continued a steadily increasing response from the farmers and home makers will be in evidence.

SUMMARY OF COUNTY ACHIEVEMENTS

For some time it has been our desire to present a yearly summary of the work of the Extension forces in terms of county achievements but time and space have prevented this discussion in our Annual Reports.

The Annual Extension Reports by the county and home demonstration agents have been unusually elaborate and complete in presenting a picture of the accomplishments of the work in the respective counties each succeeding year. The officials of the Department of Agriculture who receive these Annual Reports have commented most favorably upon them. Several reports have been sent to other states and used at various conferences for reference.

The county summaries of County Extension Work, which follow are very inadequate in detailing the various projects completed and in progress.

It is difficult to outline the many phases of agricultural development, and even more difficult to measure results in terms of definite accomplishments. For instance, no one can estimate the ultimate benefits of Boys' and Girls' Club Work as it has developed in several counties where 100 or more boys are accumulating herds of purebred stock or where the girls are manifesting unusual interest in poultry and other farm projects, and especially in modern housekeeping, better home sanitary conditions and the development of a rural social consciousness that means much for Maryland in the future. The same may be said of the development of the adult work.

Certainly there never has been a time in this State when the agricultural forces were more alert and sympathetic to the adoption of modern practices on the farm and in the home than at present. No greater tribute could be paid to the earnest work of the Extension Agents.

The accompanying summaries under each county will give some idea of the work and results during the decade.

ALLEGANY COUNTY

COUNTY AGRICULTURAL AGENTS

John McGill, Jr., 1914-1919.
I. V. McKenzie, 1918-1919.
K. C. Cole, 1919-1920.
P. W. Moore, 1920.
R. F. McHenry, 1920 to date.

HOME DEMONSTRATION AGENTS

Mrs. L. H. Powell, 1915-1918.
(Asst.) Miss Dorothy Neibert, 1919.
Miss M. R. Morgan, 1920-1922.
Miss B. M. Volk, 1923-1924.

The agriculture of Allegany County is overshadowed by its industrial interests. Its population of 69,938 places it second in this respect among the counties of the State. Its land area, however, is but 283,520 acres and much of this is unsuited to farming.

In the value of all farm property the county ranks twenty-second and holds the same position in the value of all domestic animals on farms and in the value of all crops produced. The value of all farm property in the county, as given by the last census, is placed at \$7,395,000. Receipts from the sale of dairy products are placed at \$248,344 and from the sale of chickens and eggs at \$83,112. The value of all crops is shown to be \$1,484,653.

A county agent was placed in Allegany County soon after the establishment of the Extension Service in the State and the Service has been continuous with few breaks caused by resignations. The people of the county have shown a ready appreciation of Extension Service work and have consistently encouraged and supported the work. The result has been a most commendable record of agricultural progress, despite the limitations due to natural conditions. Some of the achievements to which the Extension Service has contributed are:

FARM CROPS:

Introduction of purebred varieties of corn of high yielding type.
Improvement in cultural methods, including more general use of fertilizers.
Offering of annual premiums at fairs and community shows for good varieties of corn.
Similar improvements in the production of oats and other cereals.
Efforts to make barren hillsides and poor land productive by the use of lespedeza.
Introduction of soybeans as a hay and forage crop. Now grown on approximately 500 acres annually.
Introduction and popularization of alfalfa, now the most important roughage for dairy animals in the county.
Introduction of other legumes, such as red, sweet and alsike clover.
Inoculation of legume crops generally practised.
Sources of purebred seed corn established.

DAIRYING:

Organization of Dairymen's Association.
Cooperative selling of milk through dairymen's association, with sales of approximately 1,000 gallons daily.
Introduction of many purebred dairy cattle, including twenty head of Guernseys through club members.
Increased consumption of dairy products through milk campaigns, etc.
Testing of herds for tuberculosis.
Improvement in feeding methods.
Progress in sanitary production of milk.

LIVESTOCK:

- Introduction of purebred swine, now numbering about 500.
- Concentration of growers on breed types of swine.
- Better feeding and management of swine.
- More general use of green pasture crops for swine.
- Introduction of 20 purebred Hampshire sheep.
- Organization of a purebred ram ring.
- Formation of sheep clubs among boys and girls.

POULTRY:

- Introduction of numerous purebred fowls.
- Organization of boys' and girls' poultry clubs.
- More general practise of culling flocks.
- Improvement in methods of feeding and management.

FRUIT CROPS:

- Increased orchard plantings.
- General use of sprays for control of insect and diseases in commercial orchards.
- More use of sprays in home orchards.
- Improvement in quality of fruit produced.
- Improvement of grading and packing methods, as evidenced by successful marketing of fruit packed in boxes.

VEGETABLE CROPS:

- Production of seed potatoes for certification.
- Organization of Western Maryland Seed Potato Growers' Association.
- Cooperative selling of seed potatoes.
- Improvement in methods of disease and insect control of potatoes.
- Growing of more vegetables for home consumption and city markets.

SOIL IMPROVEMENT:

- More general use of lime as a result of influence with 278 farmers and the cooperative purchase of 1,285 tons of lime.
- Cooperative purchase of lime.
- More general use of high grade fertilizers as a result of influence with 1,865 farmers and the purchase of 1,307 tons of fertilizer.
- Improved crop rotations being practised.
- Increase in acreage devoted to legume crops.
- Cooperative purchase of fertilizers.

BOYS' CLUB WORK:

- Organization of corn clubs.
- Organization of potato clubs.
- Organization of calf clubs which have introduced twenty purebred dairy heifers.
- Organization of sheep club which purchased sixteen purebred Hampshire ewes.
- Organization of swine clubs which have been responsible for the introduction and distribution of practically all the purebred swine in the county.
- Organization of poultry clubs.

ORGANIZATION:

- Organization of Western Maryland Seed Potato Growers' Association.
- Organization of Dairymen's Association.
- Organization for the cooperative retail distribution of milk in Cumberland.
- Organization of eight community clubs.
- Organization of County Farmers' Federation.
- Organization of several Granges.
- Organization of Farm Supply Company for cooperative buying and selling.
- Organization of County Farm Loan Association.
- Formation of Cumberland Fair Association and development of agricultural exhibits.

HOME WORK:

- Organization of nine women's clubs.
- Organization of eight girls' clubs.
- Improvement in canning methods and increase in quantity of home canned products.
- Savings due to making of clothing and millinery in the home.
- More general application of principles of health and nutrition.
- Installation of numerous labor saving conveniences in the homes.
- Improvement in management of home poultry flocks.
- Increased number of home gardens.
- County Federation of Women's Clubs.
- Milk campaign in cooperation with national and local organizations.
- Women's Club booths at County Fair.

ANNE ARUNDEL COUNTY

COUNTY AGRICULTURAL AGENTS

H. C. Whiteford, 1915-1919.

G. W. Norris, 1919-1924.

J. M. Huffington, 1924 to date.

HOME DEMONSTRATION AGENTS

Miss M. L. Iglehart, 1915-1916.

Miss M. R. Brady, 1917-1918.

Mrs. Georgiana Linthicum, 1918 to date.

With a population of 43,408, Anne Arundel County stands fifth in the State in the number of people within its borders. The agriculture is greatly diversified. All the cereal and hay and forage crops common to the general farming system are produced. Considerable numbers of livestock are raised and dairying is growing in importance. Perhaps, tobacco constitutes the main cash crop of the county, but an extensive trucking industry has been developed that produces annual returns far in excess of the value of the tobacco crop.

The total farm property of the county is valued at \$17,066,857 and places Anne Arundel twelfth among the counties of the State in this respect. In the value of domestic animals on farms, the county is sixteenth and in the value of all crops grown tenth. The annual value of all crops is \$4,556,924; receipts from the sale of dairy products total \$200,374 each year; and the sale of chickens and eggs produces an annual revenue of \$99,437.

County agent service in Anne Arundel County dates back to 1914. The following year the county secured a home demonstration agent. The work has been continued without serious interruption and has been well supported by the people of the county. In many lines the progress of the county's agriculture has been apparent and some features of development which the Extension Service has helped to effect may be cited as follows:

FARM CROPS:

- Introduction of purebred and higher yielding varieties of corn.
- Improvement in cultural methods.
- Selection of seed corn with particular reference to freedom from root rot.
- Large increase in the use of cowpeas for hay and pasture.
- More general use of crimson clover.
- Introduction of sweet clover.
- Introduction of soybeans.
- Increased use of alfalfa.
- Introduction and increased use of vetch in the tobacco rotation.
- Introduction of Japan Clover for poor soils.
- Practically universal use of inoculation for legume crops.
- Introduction of methods for control of tobacco plant bed diseases.
- Improvement in the use of fertilizers particularly suited to tobacco.
- Use of better designed tobacco barns.
- Organization of county unit of the Maryland Tobacco Growers' Association.
- Introduction of Maryland Mammoth Tobacco, developed by the Maryland Experiment Station.

DAIRYING:

- Introduction of 33 purebred sires and 88 higher producing dairy cows.
- Erection of 15 silos.
- Improvement in feeding methods and management.
- Greater production of home grown feeds.
- Organization of Annapolis Milk Producers' Association.

LIVESTOCK:

- Introduction of 77 purebred swine through boys' clubs and otherwise.
- Introduction of 69 purebred rams and ewes.

POULTRY:

- Introduction of many purebred fowl.
- Establishment of boys' and girls' clubs which served to stimulate interest in poultry.
- More general use of culling as a factor in efficient flock management.
- Practise of better housing and feeding methods.
- Production of capons to increase income from poultry.

FRUIT CROPS:

- Production of better quality of fruit.
- More general use of sprays for disease and insect control.
- Introduction and general use of paradichlorobenzene to combat peach tree borers.
- The practise of Extension Service methods by ninety per cent of the orchard fruit growers of the county.

TRUCK CROPS:

- More general use of dusting for control of insects and diseases of truck crops.
- Introduction of the cloth trailer thereby making dust applications more effective.
- Production of certified seed potatoes.
- Introduction of root rot resistant peas.
- Introduction of disease resistant varieties of tomatoes and cabbage.
- Demonstrations in the control of black rot of cabbage.
- Production of varieties of potatoes less susceptible to disease than McCormicks.

SOIL IMPROVEMENT:

- Improvement in crop rotations.
- Drainage of many low and unproductive areas of land.
- Use of more efficient fertilizers.
- A more general use of lime.
- More efficient use of lime as a result of hundreds of soil tests.
- Increased production of legumes, cover crops and green manures.
- Increased use of home mixed fertilizers.

BOYS' CLUB WORK:

- Instruction in better agriculture given to several hundred boy club members.
- Introduction of purebred swine through club members.
- Demonstration of tobacco culture through club members.
- Demonstrations of methods for growing corn and potatoes through club members.

ORGANIZATION:

- Organization of units of the Maryland Tobacco Growers' Association.
- Organization of Annapolis Milk Producers' Association.
- Formation of West River Fair Association.
- Organization of Millersville Farmers' Club.
- Organization of Crownsville Farmers' Club.
- Organization among swine growers to combat hog cholera.
- Organization of Anne Arundel County Farm Bureau with 220 members.
- Organization of three truckers' associations.
- Formation of Anne Arundel County Agricultural Society with 250 members.
- Organization of County Farm Loan Association.

HOME WORK:

- Organization of 10 women's clubs.
- Organization of 10 girls' clubs.
- Community program of work with farm bureau locals.
- Installation of numerous home labor saving devices.
- Increased quantities of food products canned and preserved and better methods used.
- Women and girls instructed in home sewing, with 4,727 pieces of clothing made under supervision of the home demonstration agent.
- Increased use of dairy products in the home.
- Women and girls taught how to make millinery.
- Home grounds improvement work.
- Better care and feeding of the home poultry flock practised.
- More home gardens.
- Establishment of a woman's exchange in cooperation with the Farm Bureau.
- Improvement in home sanitation.
- Better selection of food practised.

BALTIMORE COUNTY

COUNTY AGRICULTURAL AGENTS

J. F. Hudson, 1915-1920.
E. E. McLean, 1920-1922.
W. C. Rohde, 1922 to date.

HOME DEMONSTRATION AGENT

Miss Mary Graham, 1923 to date.

Country homes and estates of wealthy residents together with a large suburban area are responsible factors in placing Baltimore County in the lead of Maryland counties in population and in the value of all farm property. The average value of land alone per acre is placed at \$90.69, the highest for any county in the State.

The agriculture of the county is well diversified. Dairying is an important industry; other livestock and poultry are produced in considerable numbers; truck crops are grown extensively in some sections close to Baltimore City, and the county ranks high in the production of the major farm crops.

The population of the county numbers 74,817. The land area, 388,480 acres, is the third largest in the State and the total value of all farm property is \$48,743,930. In the value of domestic animals on farms and in the value of all crops, the county ranks third. Domestic animals of the county are valued at \$3,217,303 and all crops at \$9,233,709. Receipts from the sale of dairy products total \$1,163,253 and from the sale of chickens and eggs, \$486,405.

Extension Service work in Baltimore County was begun in 1915 with the appointment of a county agent. The work has been encouragingly supported and has received a growing appreciation of its value from the people of the county. It was not until 1923, however, that the county secured the service of a home demonstration agent. Agricultural developments that have taken place in Baltimore County and to which the Extension Service has contributed may be summarized as follows:

FARM CROPS:

Introduction of varieties of corn that have increased acre yields.
Distribution of purebred seed corn.
Establishment of purebred seed sources.
Introduction of purebred and higher yielding strains of wheat.
Introduction of soybeans, now grown on 1500 acres.
Increased production of alfalfa.
Introduction of other legume crops.
Increased use of inoculation for legumes.

DAIRYING:

Organization of unit of Maryland State Dairymen's Association.
Testing of many herds for tuberculosis.
Improvement in feeding and management, particularly in more efficient use of home grown feeds.
Introduction of numerous purebred dairy animals.

Organization of boys' calf clubs.
Instruction of club members in dairy cattle judging.
Organization of cow testing association.
Progress in elimination of low producing cows through cow testing associations and individual herd records.
Improvement in methods of producing and handling milk.

LIVESTOCK:

Cooperative purchase of feeder cattle.
Introduction of purebred swine.
More general use of pasture crops for hogs.
Better control of hog cholera in cooperation with regulatory officials.
Introduction of purebred sheep.
Improvement in shearing and handling of wool.
Pooling of wool.
Inauguration of Better Sires, Better Stock Campaign.

POULTRY:

Introduction of purebred fowls.
Instruction of boy club members in housing, feeding and management of poultry.
Expansion of commercial poultry industry.
Improvement in housing, feeding and management of poultry.
Better control of poultry diseases.
Increased flock efficiency through culling.
Increased production of capons.
Progress in community standardization.

FRUIT CROPS:

Production of better quality fruit.
Increased use of spraying for control of insects and diseases.
Better pruning methods in practise.
Organization of one spray ring.
Introduction of thinning as a desirable practise in some orchards.

TRUCK CROPS:

Progress in development of blight resistant spinach.
Improvement in methods of producing tomato plants.
Introduction of varieties of cabbage resistant to the yellows.

SOIL IMPROVEMENT:

More efficient use of lime resulting from soil testing demonstrations.
Increased use of high analysis fertilizers.
Increased production of legume crops.

BOYS' CLUB WORK:

Organization of boys' potato, calf, pig and poultry clubs.
Introduction of purebred dairy cattle through club boys.
Introduction of purebred swine through club boys.
Introduction of purebred poultry through club members.
Instruction of club members in dairy cattle judging.
Exhibition of club members' products at community shows and fairs.

ORGANIZATION:

Organization of unit of Maryland State Dairymen's Association.
Organization of community clubs.
Formation of local Granges.
Organization of Farm Bureau with 15 locals and 501 members.
Organization of cow testing association.
Organization of boys' clubs.
Operation of wool pool.
Organization of County Farm Loan Association.

HOME WORK:

Organization of 19 women's clubs.
Organization of one girls' club.
Organization of home products' market.
Introduction of home labor saving devices and methods.
Better understanding of food values and improvement in food selection and meal planning.
Introduction of home sewing ideas.
Introduction of home millinery methods.
Increased knowledge of basket weaving.

CALVERT COUNTY

COUNTY AGRICULTURAL AGENTS

J. H. Drury, 1911-1923.
S. R. Newell, 1924 to date.

HOME DEMONSTRATION AGENTS

Miss R. F. Chamberlain, 1917-1918.
Miss E. M. Lowe, 1919.
Miss A. L. Gause, 1919.

Smallest in population and in area of all the counties of the State, Calvert County nevertheless has a relatively extensive agriculture that includes the production of all the major farm crops. Tobacco, however, is the most valuable crop and the one around which most interest centers.

The population of Calvert County is 9,744 and the land area is but 139,520 acres, a considerable quantity of which is not improved farm land. The value of all farm property in the county is \$5,358,606; the value of all domestic animals on the farms, \$525,872; and the annual value of all crops \$1,474,953. Yearly receipts from the sale of dairy products total \$8,452 and from the sale of chickens and eggs, \$33,642.

Extension Service work was begun in Calvert County prior to the organization of the State Extension Service and has been continued without interruption. The work has been well received and supported by the people of the county and a very considerable progress has been made in improving agricultural conditions of the county since its establishment. Among some features of progress may be mentioned the following:

FARM CROPS:

- Introduction of Maryland Mammoth tobacco, developed by the University of Maryland Experiment Station.
- Increased tobacco yields resulting from use of more efficient fertilizers.
- Improvement of crop rotations.
- Introduction of purebred and higher yielding varieties of corn.
- Improvement in cultural methods, including increased use of modern machinery.
- Improvement in yields resulting from seed corn selection.
- Introduction of legumes, such as crimson, red, alsike and Japan clovers, and alfalfa.
- Advancement in control of tobacco diseases.

LIVESTOCK:

- Improvement in management, feeding and handling of cattle, sheep and swine.
- Introduction of purebred dairy cattle.
- Testing of a few herds for tuberculosis.
- Cooperative purchase of dairy feeds.
- Introduction of purebred swine.
- Improvement in care and management of swine.
- Progress in control of hog cholera through cooperation with regulatory officials.

POULTRY:

- Expansion of the poultry industry.
- Introduction of purebred fowls.
- Improvement in housing, feeding and management.

FRUIT CROPS:

- Development of a few young orchards.
- Improvement in measures for control of insects and diseases of orchard fruits.
- Some improvement in pruning methods, due to demonstrations.

TRUCK CROPS:

- Development of strawberry production.

SOIL IMPROVEMENT:

- Increased use of lime.
- Use of more efficient fertilizers.
- Improved crop rotations.
- Introduction of legume crops.

BOYS' CLUB WORK:

- Organization of boys' clubs.
- Instruction of club members in corn production methods.
- Instruction of club members in tobacco production methods.

ORGANIZATION:

- Organization of unit of Maryland Tobacco Growers' Association.
- Organization of county agricultural exhibit.
- Organization of county Farm Bureau with five locals and 203 members.
- Organization of county Farm Loan Association.

CAROLINE COUNTY**COUNTY AGRICULTURAL AGENTS**

- A. J. Norman, 1916-1917.
- E. O. Anderson, 1917-1919.
- W. C. Thomas, 1920-1923.
- L. M. Goodwin, 1923 to date.

HOME DEMONSTRATION AGENTS

- Miss Alma Nerwin, 1916.
- Mrs. E. Norman, 1917-1921.
- Miss E. C. Kellogg, 1922-1924.
- Miss B. M. Spafford, 1924 to date.

While Caroline County is small both in population and land area it is devoted to a diversified system of farming that includes the production of all the major farm crops, some truck and canning crops and a fairly extensive dairy industry.

The total population of 18,652, places the county sixteenth while the land area of 204,160 acres ranks the county eighteenth in size among the counties of the State. In the value of all farm property the county is sixteenth with an aggregate valuation of \$14,833,166. The domestic animals on farms of the county are valued at \$1,408,248 which gives the county fourteenth rank in this respect. In the value of all crops the county stands seventeenth with a total annual crop valuation of \$3,399,350. Yearly receipts from the sale of dairy products amount to \$264,091 and from chickens and eggs, \$324,876.

Extension Work in Caroline County was begun in 1916 with the appointment of both county and home demonstration agents. The work has been well received by the people of the county and has been consistently supported, showing a continuous and increasing appreciation of the service performed. Some most encouraging developments in the agriculture of the county have taken place since the inauguration of the Extension Service Work, some of which may be summarized as follows:

FARM CROPS:

- Introduction of purebred and higher yielding varieties of corn.
- Improvement in yield resulting from seed corn selection with reference to root rot.
- Establishment of sources of purebred seed corn.
- Introduction of Mammoth Red wheat which has resulted in increased yields of improved quality.
- Wide distribution of this seed so that about 2000 bushels was available and planted in 1924.
- Introduction of soybeans and other legume crops.
- Distribution of bacteria for inoculation of legumes and increased use of this material.
- Production of soybeans for seed.

DAIRYING:

- Expansion of the dairy industry.
- Introduction of many purebred animals.
- Organization of cow testing association.
- Increased production per cow as a result of improved animals, better feeding and management.
- Formation of cooperative bull association.
- Organization of boys' dairy calf club.
- Testing of 58 herds, involving 573 animals, for tuberculosis in cooperation with regulatory authorities.

FRUIT CROPS:

- Improvement in quality of orchard fruits.
- Improvement in spraying practises by commercial orchardists for insect and disease control.
- Organization of spray ring to serve small producers.

TRUCK CROPS:

- Development of trucking and canning crops industries.
- Advancement in selecting and saving tomato seed.
- Improvement in production of tomato plants through establishment of centralized plant beds.
- Progress in standardization of cantaloupe varieties through distribution of 125 pounds of seed of selected varieties.
- Organization of cooperative association for shipment of cantaloupes.
- More general use of dusting for control of cantaloupe pests.
- Beginning of asparagus production.
- Production of string beans for canning.

LIVESTOCK:

- Introduction of purebred sheep.
- Introduction of purebred swine.
- Progress in control of hog cholera in cooperation with regulatory officials.
- Improvement in the feeding and management of swine.
- Cooperative marketing of livestock.

POULTRY:

- Expansion and development of the poultry industry.
- Improvement in housing, feeding and management.
- More general practise of culling.
- Instruction of club members in poultry subjects.
- Cooperative purchase of poultry feeds.

SOIL IMPROVEMENT:

- More economical use of lime as a result of soil tests.
- Increased use of high analysis fertilizers.
- Substantial savings effected through home mixing of fertilizers.
- Improvement in crop rotations.
- More general use of legume crops.

ORGANIZATION:

- Organization of local Granges.
- Formation of numerous farmers' clubs.
- Organization of Caroline County Farm Bureau.
- Organization of numerous boys' clubs.
- Formation of cooperative bull associations.
- Organization of cow testing association.
- Organization of spray rings.
- Formation of cooperative association for packing and shipping of cantaloupes.
- Organization of cooperative association which purchased products to the value of \$73,061 in 1924 and sold approximately 100 head of livestock.
- Organization of County Farm Loan Association.

BOYS' CLUB WORK:

- Organization of dairy calf club.
- Instruction of club members in dairy cattle judging.
- Instruction of club members in egg grading and packing.
- Instruction of club members in tomato plant production.
- Organization of pig clubs and introduction of purebred swine through this plan.

HOME WORK:

- Organization of 11 women's clubs.
- Organization of 5 girls' clubs.
- Federation of women's clubs.
- Federation of girls' clubs.
- Organization of two county camps for girls.
- Introduction of home labor saving devices and methods.
- Improvement in methods of food preservation.
- Increased interest in food selection and meal planning.
- Improvement in methods of home sanitation.
- Increased knowledge of home sewing and home millinery construction.

CARROLL COUNTY

COUNTY AGRICULTURAL AGENTS

Grover Kinzy, 1916-1918.
F. W. Fuller, 1918 to date.

HOME DEMONSTRATION AGENTS

Miss R. L. Everett, 1917-1923.
Miss E. I. Cobb, 1923 to date.

Carroll County stands among the leading counties of the State in the value of its agriculture. While its population of 34,245 places it eighth among the counties of the State and its land area of 286,080 acres ranks it tenth in area, it is fourth in the value of all farm property which is worth \$30,899,787. More than 75 per cent of the area of Carroll County consists of improved farm land and the majority of its farms are operated by owners.

A general system of farming prevails throughout the county. Livestock of all kinds, are produced in considerable numbers and dairying is particularly well developed. The county has some extensive orchards and the production of canning crops, especially sweet corn, is an important feature of the county's agriculture. In addition the county has a unique industry in the production of chenopodium or worm-seed oil.

The value of all domestic animals on farms in Carroll County is \$3,886,568 and only one other county has livestock in excess of this figure. The value of all crops, as recorded by the census, is \$9,487,895 and is exceeded by only one other county in the State. Receipts from the sale of dairy products amount to \$1,544,917 and from chickens and eggs, \$931,984.

Extension Work in Carroll County was begun in 1916 and has been continued with but one change in county agents and one change in home demonstration agents. The people of the county have supported the work most encouragingly and the agricultural progress has been along many lines among which may be mentioned the following:

FARM CROPS:

- Introduction of purebred and higher yielding varieties of corn.
- Establishment of sources of purebred seed corn.
- Introduction and distribution of higher yielding strains of wheat.
- Increased production of barley.
- Improved yield from barley due to treatment of seed to control smut.
- Increase of alfalfa acreage 250 per cent.
- Introduction of soybeans—now grown on about 2,000 acres.
- Introduction of other legumes.
- General use of inoculation for all legume crops.

DAIRYING:

- Expansion of the dairy industry.
- Organization of unit of Maryland State Dairymen's Association with 1025 members.
- Introduction of purebred dairy animals.
- Improved milk production through better methods of feeding and management.
- Improvement in sanitary conditions surrounding the production and handling of milk.
- Progress in eradication of bovine tuberculosis through 191 herd tests in cooperation with regulatory authorities.
- Increased consumption of milk in the county.

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Instruction of club members in dairy cattle judging and in feeding and management of dairy cattle.
The holding of feed and legume schools among the dairymen.

LIVESTOCK:

Introduction of 99 purebred brood sows and 40 purebred boars.
Improvement in feeding and management of swine, including more general use of pasture crops.
Improvement in control of hog cholera in cooperation with regulatory officials.
Introduction of purebred swine through club members.
Introduction of purebred sheep.
Pooling of wool to be made into blankets.

POULTRY:

Expansion of the poultry industry.
Introduction of purebred fowls.
Improvement in housing, feeding and management of poultry.
More efficient production made possible through culling.
Establishment of an annual poultry show.
Erection of 350 poultry houses according to Extension Service plans.
Organization of boys' poultry clubs.
Improvement of the home flock through introduction of purebreds by club members.

FRUIT CROPS:

Improved quality of tree fruits.
Better and more systematic spraying schedules followed.
Improvement in grading and packing of orchard fruits.
Inauguration of Federal-State shipping point inspection for tree fruits.
Improved pruning practises followed.
Better control of insect and disease pests.

CANNING AND TRUCK CROPS:

Development of canning crops industry.
Improved prices for sweet corn.
Acquisition of data to show cost of producing sweet corn for canning.

SOIL IMPROVEMENT:

Increased and more efficient use of lime.
Increased use of high analysis fertilizers.
Increased use of home mixed fertilizers.
Cooperative purchase of fertilizers which greatly reduced cost.
Increased use of legume crops.

BOYS' CLUB WORK:

Organization of boys' corn, pig, poultry and calf clubs.
Introduction of purebred swine, dairy animals and poultry through club members.
Instruction of boy club members in dairy cattle judging.

ORGANIZATION:

Organization of unit of Maryland State Dairymen's Association with 1,025 members.
Organization of local Granges.
Organization of Carroll County Farm Bureau with 14 locals.
Organization of farmers' clubs.
Formation of boys' and girls' clubs.
Formation of Farm Loan Association.
Organization of Growers' of Worm Seed.
Pooling of wool.
Organization of Farm Bureau Cooperative Association which made purchases amounting to \$88,515 in 1924.

HOME WORK:

Organization of 19 women's clubs with membership of 693.
Formation of Federation of Women's Clubs.
Organization of girls' clubs.
Introduction of home labor saving devices and methods.
Improvement in home grounds.
Improvement in communities through beautification of home, school and public grounds.
Instruction of women and girls in home sewing.
Instruction of women and girls in home millinery.
Improvement in housing, feeding and management of home poultry flocks.
Improved methods of food preservation.
Increased home consumption of milk.
Improvement in home sanitation.
Improvement in selection of foods, due to knowledge of nutritive values.

CECIL COUNTY

COUNTY AGRICULTURAL AGENTS

G. F. Marsh, 1915-1916.
 D. H. Kauffman, 1916-1917.
 J. H. Knode, 1917-1921.
 W. C. Snarr, 1921.
 F. L. Bull (Asst.), 1924.
 A. D. Radebaugh, 1921 to date.

HOME DEMONSTRATION AGENTS

Miss E. J. Day, 1918.
 Miss Eleanor Albaugh, 1919.
 Miss E. T. Wotring, 1919-1920.
 Miss Dorothy Ross, 1920-1921.
 Miss E. V. Hodgson, 1921-1923.
 Miss L.R.Grimm, 1923 to date.

Cecil County, with a population of 23,612 and a total land area of 241,280 acres, belongs to the groups of counties which practise a general system of farming. The major farm crops represent the chief items of production with dairying and the production of canning crops among the more important specialized industries. Asparagus production has increased in some sections of the county in recent years and gives evidence of further development.

Cecil County is fourteenth in size among the counties of the State. More than seventy per cent of its total land area, however, consists of improved farm land and in the value of all farm property, totaling \$17,520,251, the county ranks eleventh. In the value of all domestic animals on farms the county ranks eighth with \$1,935,495 representing the live-stock holdings. The value of all crops is placed at \$3,663,017 which gives the county thirteenth rank. The county has annual receipts from the sale of dairy products amounting to \$925,738 and from the sale of chickens and eggs, \$239,814.

Agricultural Extension Work in Cecil County was begun in 1915 and the work has been continued with but few changes in personnel. Home demonstration work was not undertaken immediately but has been maintained during the past few years. The Extension Work has been conducted in cooperation with the existing local farm organizations in the county and has been most encouragingly supported by the people. Among the agricultural developments that have been effected since the inauguration of the Extension Work may be cited the following:

FARM CROPS:

Introduction of purebred and higher yielding varieties of corn.
 Establishment of outstanding sources of seed corn.
 Development of seed corn production as an industry.
 Increase of average production of corn per acre by about five bushels.
 Establishment of a reputation in seed corn production outside the State.
 Introduction and wide distribution of Mammoth Red wheat developed by the University of Maryland Experiment Station.
 Establishment of sources of purebred seed wheat.
 Growing of seed wheat for certification.
 Improvement in quality and acre yield of wheat.
 Increase in alfalfa acreage in 14 years from 68 to 600 acres.
 Introduction of soybeans.
 Development of soybean seed production—3,200 bushels produced in 1924.
 Introduction of other legume crops, such as sweet clover and lespedeza.
 Better knowledge regarding clover seed that has resulted in improved crops of this legume.
 General use of inoculation for all legume crops.

DAIRYING:

- Expansion of dairy industry—annual milk production increased 950,000 gallons in past ten years.
- Formation of unit of Inter-State Milk Producers' Association.
- Introduction of numerous purebred dairy animals.
- Progress in the eradication of bovine tuberculosis through testing.
- Improvement in milk production through improved methods of feeding and management.
- Organization of cow-testing association.
- Individual testing by many farmers as a result of demonstrations in methods of testing for butterfat.
- Improved sanitary conditions surrounding the production and handling of milk.
- Improvement in quality of milk supplied to Elkton.
- Training of club boys in dairy cattle judging. (Cecil County boys won National contest at Atlanta, Ga., and trip to England in 1922.)

LIVESTOCK:

- Introduction of purebred swine.
- Organization of Poland China Breeders' Association.
- Improvement in feeding and management of swine, including greater use of pasture crops.
- Feeding of greater numbers of beef cattle.
- Improvement in fattening rations for beef cattle.

POULTRY:

- Introduction of purebred fowls.
- Improvement in housing, feeding and management of poultry.
- Progress in the control of poultry diseases.
- Organization of Cecil County Poultry Association to promote industry.
- Increased use of egg production records.
- Instruction of club members in poultry work.
- More efficient poultry production through culling.
- Increase in number of capons produced.

FRUIT CROPS:

- Improvement in quality of tree fruits grown.
- Better and more systematic spraying schedule followed.
- Improvement in pruning practises.
- Beginning of demonstrations with blackberries.

CANNING AND TRUCK CROPS:

- Expansion of asparagus industry from 8 to 300 acres in ten years.
- Introduction and distribution of improved varieties of asparagus.
- Establishment of sources for seed and plants in county. About 1,200 pounds of seed and about 200,000 roots available in 1924.
- Improvement in methods of producing tomato plants. (Community plant bed method originated in 1922.)
- Increased yields of canning tomatoes resulting from better plants, better methods of culture, etc.
- Development of idea of selecting and saving home-grown tomato seed.
- Introduction and development of improved varieties of tomatoes.

SOIL IMPROVEMENT:

- Introduction and increased production of legume crops.
- Increased use of high analysis fertilizers.
- More efficient use of lime as a result of soil tests.

BOYS' CLUB WORK:

- Organization of poultry, pig and corn clubs.
- Instruction in methods of producing corn and selecting and judging seed corn.
- Instruction in housing, feeding and management of poultry.
- Instruction in feeding and management of swine.
- Training of club members in dairy cattle judging.

ORGANIZATION:

- Organization of County Farm Loan Association.
- Formation of unit of Inter-State Milk Producers' Association.
- Organization of farmers' clubs, Farmers' Union locals and community associations.
- Organization of county and community agricultural exhibits.
- Organization of a county council or federation of clubs.

HOME WORK:

- Organization of eight women's clubs.
- Organization of County Federation of Women's Clubs.
- Organization of sixteen girls' clubs.
- Introduction of home labor saving devices and methods.
- Instruction of women and girls in home sewing.
- Instruction of women and girls in home millinery.
- Improvement in home sanitation.
- Better methods of food preservation practised.
- Improved management of home poultry flocks.
- Increased interest in food selection and meal planning.
- Compilation of cooking recipes in book form.
- Increase of home exhibits at community shows and fairs.

CHARLES COUNTY

COUNTY AGRICULTURAL AGENTS

W. R. Linthicum, 1915.
 R. L. Clute, 1916.
 J. P. Burdette, 1917-1923.
 G. R. Stuntz, 1924 to date.

HOME DEMONSTRATION AGENTS

Mrs. J. M. Linthicum, 1914-1915.
 Miss Charlotte Poole, 1916.
 Miss Viola Poole, 1917.
 Miss J. E. Etchison, 1919-1920.
 Miss Imogene Gardiner, 1920-1921.
 Mrs. E. S. Bohannon, 1921 to date.

With a comparatively large land area, totaling 296,960 acres, Charles County is nevertheless sparsely populated and its entire population of 17,705 people is entirely rural. The agriculture of the county is more or less general with the production of tobacco as the leading specialty.

Eighteenth in population among the counties of the State, Charles County holds the same rank in the value of all farm property and in the value of domestic animals on farms and is nineteenth in the value of all crops produced. The value of all crops grown in the county, as given in the census, totals \$2,787,144. The receipts from the sale of dairy products are placed at \$36,077 and the receipts from the sale of chickens and eggs amount to \$128,280.

Extension Work in Charles County was begun in 1914 with the establishment of the State Extension Service and has been continued practically without interruption. The development that has taken place in the county and to which the Extension Service has contributed may be summarized as follows:

FARM CROPS:

Introduction of Maryland Mammoth tobacco, developed by the Maryland Experiment Station, which has greatly increased acre yields.
 Use of proper methods to combat diseases of tobacco in plant beds.
 Improvement in use of fertilizers and consequent increase in yields and improvement in quality of tobacco.
 Organization of tobacco growers in the Maryland Tobacco Growers' Association. This organization has been responsible for securing \$486,000 in increased prices during 1924 and in saving \$16,185 through cooperative fertilizer purchases.
 Introduction of purebred seed corn by 23 growers.
 More general use of purebred seed corn as a result of these sources of seed.
 Progress in the selection of seed corn with particular reference to root rot, which is estimated to cause a loss of a third of the crop.
 Introduction of purebred varieties of wheat.
 Introduction of alfalfa as a hay and pasture crop that is now grown on 535 acres.
 Introduction of soybeans now grown on 1,760 acres.
 Introduction of sweet clover.
 Increase in acreage of crimson clover now grown by 43 per cent of the tobacco growers as a soil improving agent.
 Increased acreage of cowpeas which are now grown on 2,240 acres.
 More general inoculation of legume crops.

DAIRYING:

Introduction of 27 purebred dairy bulls.
 Introduction of 17 purebred dairy cows.
 Erection of new dairy barns, and improvement of old ones.
 Improvement in feeding methods and management.
 Establishment of a cooperative creamery at Waldorf, receiving milk from 100 farmers and making 7,000 pounds of butter a month.
 Testing of herds for tuberculosis in cooperation with regulatory authorities.
 Erection of seven silos.

LIVESTOCK:

- Introduction of purebred swine.
- Introduction of purebred rams and ewes.
- Pooling of the wool crop, thereby increasing the price to growers.

POULTRY:

- Establishment of seven commercial flocks.
- Standardization of numerous small flocks.
- Vast improvement in feeding methods and management.

SOIL IMPROVEMENT:

- Increase in the use of lime from two or three carloads annually to between 30 and 40.
- More efficient use of lime as a result of 131 soil testing demonstrations.
- Increased acreages of legumes.
- Thirty-five per cent of the farmers now purchasing fertilizer on basis of analysis instead of by name, as a result of Extension demonstrations and other efforts.
- Improvement of system of rotation of crops.

ORGANIZATION:

- Formation of strong county unit of Maryland Tobacco Growers' Association.
- Organization of two Granges.
- Organization of Farm Bureau with ten active locals.
- Organization of County Fair and promotion of community shows.
- Organization of County Farm Loan Association.

HOME WORK:

- Formation of 15 women's clubs with membership of 350.
- Formation of 12 girls' clubs with membership of 115.
- Organization of County Federation of Women's Clubs.
- Organization of Library Association and opening of public library in remodeled building.
- Large annual savings on home made millinery and clothes.
- Improved methods of canning introduced.
- Numerous home improvements effected economically.
- Improvement in home flocks of poultry.
- Increased number of home gardens.
- More general use of vegetables and dairy products.

DORCHESTER COUNTY**COUNTY AGRICULTURAL AGENTS**

- G. B. Porter, 1914-1917.
- C. E. Leathers, 1918-1919.
- J. F. Davis, 1919-1920.
- P. W. Moore, 1920-1922.
- E. W. Montell, 1922 to date.

HOME DEMONSTRATION AGENTS

- Miss V. M. Kellar, 1916.
- Miss E. V. Akin, 1917.
- Miss H. G. Walker, 1918-1919.
- Miss F. G. Stuart, 1919-1920.
- Miss C. F. Crippen, 1920-1921.
- Miss R. E. Van Scoter, 1922.
- Miss S. E. Coyne, 1923 to date.

While Dorchester is one of the large counties of the State in area, its population is relatively small and largely rural. Its agriculture is greatly diversified and all of the major farm crops are produced successfully together with many truck and canning crops. The dairy industry, too, has been developed to a considerable extent in the county.

The land area of Dorchester County is 368,640 acres but a relatively large percentage is unimproved. The population is 27,895. The county is fourth in area and seventh in the value of all farm property which is placed at \$21,770,695. The value of all domestic animals on farms totals \$1,238,087 which is seventeenth among the counties of the State. In the value of its crops, the county is eleventh with an annual production value of \$4,005,978. Receipts from the sale of dairy products total \$300,000 and from chickens and eggs \$208,590.

Dorchester County was one of the first counties to have the service of a county agent and a home demonstration agent

was appointed soon after. While there have been some unfortunate interruptions in the service, the people have manifested a fine spirit of cooperation and have supported the work consistently. In recent years, particularly, progress of a marked character has been noted in the agricultural development of the county. Among the features which might be mentioned as showing the agricultural development of the county since the establishment of the Extension Service are the following:

FARM CROPS:

- Introduction of purebred varieties of corn.
- Increase of approximately fifteen bushels in the average yield per acre.
- Introduction of higher yielding varieties of wheat, the total distribution amounting to about 500 bushels.
- Use of better seed corn as a result of seed corn testing.
- Planting of as much as a thousand acres of corn selected for good seed characteristics
- Improvement of cultural methods for corn.
- and freedom from root rot.
- Gradual improvement in average yield of wheat.
- Introduction of treatment of wheat to prevent smut.
- Introduction of soybeans and other legumes, such as sweet clover and lespedeza.
- Increased acreage of alfalfa.
- Establishment of sources of soybean seed.
- General use of inoculation for legume crops.

DAIRYING:

- Organization of unit of Inter-State Milk Producers' Association with 218 members.
- Establishment of two cooling stations.
- Introduction of purebred dairy animals.
- Increase in sale of dairy products in five years from \$100,000 to \$285,000.
- Improvement in methods of feeding as a result of dairy schools.
- Increased production of home grown feeds.
- Testing of more than 1,000 animals for tuberculosis.
- Improvement in dairy barn construction and the employment of better methods of producing and handling milk.
- Training of club boys in dairy cattle judging.

FRUIT CROPS:

- Improvement in quality of tree fruits grown in the county.
- More general and efficient use of sprays.
- Introduction of paradichlorobenzene to control peach tree borers.
- Adoption of improved pruning practises.

TRUCK CROPS:

- Formation of cooperative marketing pool for tomatoes, involving 4,000 acres and the sale of 556,000 baskets of tomatoes.
- Establishment of four auction blocks for the sale of tomatoes.
- Formation of two cooperative canning projects.
- Lengthening of the tomato canning season by the use of early grown plants.
- Importation of 3,000,000 tomato plants grown in South Carolina.
- Improvement in quality of tomato plants grown locally by adoption of better cultural methods.
- Extensive use of wilt resistant tomato seed.
- Saving of about 500 pounds annually of wilt resistant tomato seed.
- Improvement and more general use of dusting to control cantaloupe diseases and insect pests.
- Control of pea louse made possible by dusts and methods advocated by the Extension Service.
- Reduced losses from sweet potato diseases resulting from proper control methods.

LIVESTOCK:

- Introduction of purebred swine.
- Improvement in methods of swine production.
- Introduction of sheep and purebred rams.
- Progress in the prevention and control of hog cholera in cooperation with regulatory officials.

SOIL IMPROVEMENT:

- Increased use of lime.
- More efficient use of lime as a result of 500 soil tests.
- Increased use of home mixed fertilizers.
- Improved crop rotations.
- More general use of legume crops.

POULTRY:

- Introduction of culling methods.
- Improvement in feeding, housing and management.
- Organization of cooperative poultry marketing pool which sold 14,000 pounds of dressed poultry at advanced prices.

ORGANIZATION:

- Organization of local granges.
- Organization of Dorchester Farmers' Association.
- Organization of Tomato Growers' Association.
- Organization of unit of Inter-State Milk Producers' Association.
- Formation of Dorchester County Farm Bureau with 360 members.
- Organization of Dorchester County Farm Bureau Cooperative Association with 225 members and an initial eight-month business of \$253,500.
- Formation of pool for sale of canning tomatoes.
- Organization of two cooperative tomato canning projects.
- Formation of pool for marketing poultry.
- Organization of four auction blocks for sale of tomatoes.
- Organization of County Farm Loan Association.

HOME WORK:

- Organization of 13 women's clubs with a membership of 514.
- Organization of seven girls' clubs.
- Federation of women's clubs.
- Introduction of numerous home labor saving devices and methods.
- Home economies made possible through instruction in making clothing and millinery.
- Introduction of milk into the school lunch.
- Improvement in the production of home poultry and eggs.
- Improvement in the selection of foods and in meal planning.
- Introduction of basket weaving.
- Increased use of the pressure cooker.
- Improvement in the preservation of food products.
- More exhibits of home products in community shows and fairs.
- Annual girls' club camp or picnic.
- Program of work with the Grange and farm bureau locals.

FREDERICK COUNTY**COUNTY AGRICULTURAL AGENTS**

- E. C. Rensberg, 1914-1915.
- P. A. Hauver, 1917-1918.
- John McGill, Jr., 1922-1923.
- P. W. Chichester, 1924 to date.

HOME DEMONSTRATION AGENTS

- Miss E. G. Ebner, 1916-1917.
- Miss E. R. Nelson, 1917.
- Mrs. E. N. Hauver, 1919.
- Miss Ella Rhodes, 1919-1920.
- Miss F. E. Gerber, 1920-1922.
- Miss E. R. Thompson, 1922 to date.

Next to the largest county in land area in the State and for many years known for the high quality and value of its agricultural products, Frederick County unquestionably offers a fine example of the results of a well-balanced system of diversified farming. Its total land area is 424,320 acres and its population is 52,541.

Dairying is the most important of the specialized agricultural industries in the county although the production of sweet corn for canning has for many years held a place of considerable prominence. The county is second in land area and second in the value of all farm property. It is first in the value of domestic animals on farms and holds the same rank in the value of crops produced. The total annual value of crops produced, as given by the last census, amounts to \$10,260,909. The receipts from the sale of dairy products are reported at \$2,197,508 yearly and the receipts from the sale of chickens and eggs total \$815,403.

Soon after the organization of the State Extension Service, a county agent was appointed for Frederick county. He

resigned, however, within a year and the work was interrupted until 1917 when both county and home demonstration agents were placed in the county.

There have been many important developments in Frederick County since the inauguration of the county Extension Work, particularly in the development of agricultural organizations. The county is now probably one of the best organized in the State with many strong Granges, a large Farm Bureau membership, representation in the Maryland State Dairymen's Association, the Maryland-Virginia Milk Producers' Association and the Atlantic Coast Poultry Producers' Association and several other associations.

The Extension Service has helped with the progress that has been noted along the following lines during recent years:

FARM CROPS:

- Introduction of improved types of corn.
- Production of purebred corn for seed.
- Introduction of purebred strains of wheat.
- Increased production of alfalfa.
- Introduction of the soybean as a hay and pasture crop.
- Establishment of sources of soybean seed.
- Increased production of other legume crops, particularly sweet clover.
- Increased inoculation of legume crops.

DAIRYING:

- Organization of county unit of the Maryland-Virginia Milk Producers' Association with 400 members.
- Organization of county unit of Maryland State Dairymen's Association with 203 members.
- Organization of cow testing association.
- Establishment of local milk receiving stations.
- Improved sanitary methods in production of milk.
- Introduction of purebred sires—nearly one-fourth of the dairymen of the county now have purebred sires.
- Introduction of purebred and good-grade cows.
- An increased number of silos.
- More general use of good feeding methods.
- Organization of several dairy breed associations.
- The testing of many herds for tuberculosis.

FRUIT CROPS:

- A greater production of quality fruit.
- The adoption of systematic spraying schedules in commercial orchards.
- Progress made in establishing a community fruit grading and packing house.

LIVESTOCK:

- Organization of swine growers to assist in combating hog cholera.
- More general use of pasture crops in production of swine.
- Reduction in hog cholera losses due to better sanitation and to understanding of sources of infection.
- Pooling of wool.
- Introduction of purebred sheep.
- Introduction of purebred hogs.

SOIL IMPROVEMENT:

- A more general and effective use of lime as the result of annual soil testing demonstrations.
- An increased use of the higher grades of fertilizer.
- Reductions in cost of fertilizer by home mixing.
- Increased production of legume crops.

BOYS' CLUB WORK:

- Organization of boys' purebred pig clubs and the introduction of many purebred swine.
- Organization of purebred calf clubs.
- Training of dairy cattle judging teams.
- Instruction of boys in production of corn, potatoes and other crops.
- Exhibition of club members' products and livestock at fairs and shows.

ORGANIZATION:

- Organization of unit of Maryland State Dairymen's Association.
- Organization of unit of Maryland-Virginia Milk Producers' Association.
- Organization of six new granges.
- Organization of fourteen community clubs.

Organization of swine growers to assist in the control of hog cholera.
 Organization of County Holstein Breeders' Association.
 Formation of one cow testing association.
 Organization of Agricultural Advisory Council.
 Organization of Farm Bureau with 750 members and 19 locals.
 Organization of Farm Bureau Cooperative Association with several branches that did \$68,500 worth of cooperative buying and selling in 1924.
 Organization of community shows in many sections.
 Formation of unit of Atlantic Coast Poultry Producers' Association.
 Organization of County Farm Loan Association.

HOME WORK:

Organization of girls' clubs.
 Organization of 21 women's clubs with a membership of 575.
 Formation of a County Federation of Women's Clubs.
 Program work with the Grange and Farm Bureau.
 Regular club programs adopted including the study of such subjects as meal planning, health and hygiene, labor saving devices for the home, sanitation, laundry methods, food preservation, home millinery and dress making.
 Institution of annual exhibit at Frederick Fair of work of women's clubs.

GARRETT COUNTY**COUNTY AGRICULTURAL AGENTS**

A. G. Middleton, 1916-1917.
 J. A. Towler, 1919-1922.
 W. C. Jester, 1922 to date.

HOME DEMONSTRATION AGENTS

Miss F. E. Gerber, 1917-1919.
 Miss L. I. Henshaw, 1920-1921.
 Miss L. B. Green, 1924 to date.

The agriculture of Garrett County is necessarily greatly affected by the climate and the character of the soil. A large part of the land area is rough and unsuited to farming or is covered with forest growth. The county, however, is the largest in land area in the State with 438,400 acres. Its population at the time of the last census stood at 19,678.

In the value of all farm property the county ranks twentieth. The value of domestic animals on farms is given at \$1,607,962 which places the county twelfth in this respect. The value of all crops totals \$2,645,116. The receipts from the sale of dairy products amount to \$232,805 annually and the sale of chickens and eggs yields yearly \$193,003.

A county agent was not placed in Garrett County until 1916 although institutes and other meetings under the auspices of the Extension Service had been held in different communities prior to this time. Extension Service Work in Garrett County has always been well received and the rural people have shown a fine spirit of cooperation and have undertaken many progressive movements for the advancement of the agricultural resources. Among those in which the Extension Service has participated may be mentioned the following:

FARM CROPS:

Introduction of corn varieties adapted to soil and climatic conditions.
 Introduction of varieties of oats—Swedish Select and Wisconsin No. 5—which have greatly increased yields of this important crop in the county.
 More general knowledge of smut control of oats as a result of Extension Service work.
 Introduction of varieties of wheat adapted to the county.
 Introduction and distribution of Japanese strain of buckwheat which has improved acre yields considerably.
 Introduction of the soybean as a crop and the spread of its production from three to several hundred farms.
 Demonstration of the fact that alfalfa can be grown in the county.
 Introduction of sweet clover as a hay and pasture crop.
 Almost universal inoculation of legume crops.

DAIRYING:

- Introduction of purebred dairy sires and purebred and grade cows.
- Introduction of 31 purebred Guernsey and Jersey heifers through agricultural club members.
- Improvement in producing quality of cows as a result of butterfat testing demonstrations and milk records.
- Testing of 84 herds of dairy cattle, consisting of 884 head, for tuberculosis in cooperation with regulatory officials.
- Improvement in feeding methods and management which have helped increase production of milk.
- Cooperative purchase of dairy feeds, totaling 180 tons.
- Organization of cooperative creamery at Keyser's Ridge.

LIVESTOCK:

- Introduction of purebred beef cattle sires.
- Improvement in feeding and management of swine.
- More general use of pasture crops for hogs.
- Introduction of purebred rams and ewes.
- Pooling of lambs and wool.

POULTRY:

- More general employment of culling by flock owners.
- Improvement in feeding and management.
- Cooperative purchase of poultry feeds and supplies.
- Establishment of two custom hatcheries.
- Use of purebred poultry on hundreds of farms.
- Erection or remodeling of twenty-five houses of approved type.

VEGETABLE CROPS:

- Production of seed potatoes for certification.
- Organization of Western Maryland Seed Potato Growers' Association.
- Cooperative selling of seed potatoes.
- Demonstration of the fact that peas for canning can be grown in the county.
- Establishment of the Mt. Airy Canning Company, for which 150 farmers are growing peas on 300 acres.

SOIL IMPROVEMENT:

- More general use of lime as result of soil tests—1,000 tests in the last two years.
- Development of local lime deposits to supply community needs and save expensive freight hauls.
- Improved system of crop rotation as result of demonstrations in management, etc.
- More extended use of legume crops.
- More general use of the higher grades of fertilizers.

ORGANIZATION:

- Organization of ten local Granges.
- Organization of Cooperative Creamery Company.
- Formation of Grange Milling and Supply Company, which sold farm products valued at \$8,900 last year and bought for its members supplies to the extent of \$42,267.
- Organization of lamb and wool pools.
- Organization of Sheep Growers' Association.
- Organization of community fairs.

BOYS' CLUB WORK:

- Organization of Jersey Calf Club and introduction of 21 purebred Jersey heifers and one Jersey bull.
- Organization of Guernsey Calf Club and introduction of ten purebred Guernsey heifers and one Guernsey bull.
- Organization of poultry club to take advantage of eggs supplied by B. & O. Railroad Company.
- Organization of Duroc Jersey pig club with ten members who purchased ten purebred sows and one boar.
- Production of seed potatoes by club members.

HOME WORK:

- Improvement in home canning methods.
- Organization of women's and girls' clubs.
- Encouragement of exhibits of home products at community fairs.
- Making of clothing and millinery in the home started.
- Community program of work with Granges.

HARFORD COUNTY

COUNTY AGRICULTURAL AGENTS

T. E. McLaughlin, 1916-1918.
 W. C. Snarr, 1920 (Asst.)
 G. R. Stuntz, 1921-1924 (Asst.)
 O. W. Anderson, 1924 to date (Asst.)
 B. B. DERRICK, 1918 to date.

HOME DEMONSTRATION AGENTS

Miss Eleanor Heuer, 1915-1916.
 Miss F. E. Saville, 1916-1917.
 Miss Margaret Schmidt, 1917-1918.
 Miss B. W. Gittinger, 1918-1922.
 Miss A. M. Holbrook, 1922-1923.
 Miss E. K. Schurr, 1923 to date.

While Harford County is ninth in population and twelfth in land area among the counties of Maryland, it is sixth in the value of all farm property, a fact that speaks well for the character of its agriculture. Only one other county has a larger proportion of its farms operated by owners.

General farming is the predominating feature of Harford County agriculture. All of the major farm crops are produced in quantity. The dairy industry, however, has been developed tremendously and is the outstanding specialized industry. The county also produces canning crops extensively and has some substantial orchard interests.

The population of Harford County is 29,291 and its land area consists of 282,880 acres. Compared with the other counties of the State it is fifth in the value of all domestic animals on farms and seventh in the value of all crops. Live-stock values total \$2,958,373 and all crops reach a total of \$5,220,780. Receipts from the sale of dairy products amount to \$1,433,712 annually; and from the sale of chickens and eggs, \$392,288.

Agricultural Extension Work was launched in Harford County in 1916. The work has grown rapidly and has received warm appreciation by the people of the county who have supported it in every way possible. Harford County is the only county in Maryland with a regular assistant county agent and this has been the result of the cooperation on the part of the people with the Extension Service in an effort to demonstrate the possibilities in boys' and girls' club work in a county. The agricultural development in the county has been marked during the past ten years and the Extension Service has contributed to some of the following features:

FARM CROPS:

- Introduction of improved varieties of corn, notably Reid's yellow dent and Johnson county white.
- Establishment of sources of seed corn.
- Production of quantity and quality of seed corn sufficient to establish a national reputation.
- Participation of seed corn growers in national exhibits, resulting in many notable prizes.
- Improvement in cultural practices for corn.
- Progress in elimination of poorer yielding varieties of corn.
- Increased acre production through contests, etc., which have demonstrated that 109 bushels per acre can be grown.
- Organization of boys' corn clubs and instruction of many boys in proper methods of production.

Introduction of improved yielding varieties of wheat.
 Establishment of seed sources in the county.
 Increase in production of wheat certified for seed.
 Reduction of losses to wheat by treatment for the Angoumois grain moth.
 Progress in elimination of garlic from wheat lands.
 Establishment of sources of soybean seed, about sixty per cent of county's needs now being supplied by local growers.
 Expansion of soybean acreage from a few acres to 5,500.
 Increase in alfalfa acreage from 400 to 4,000 acres.
 Introduction of other legume crops.
 More general use of inoculation in production of legumes.

DAIRYING:

Expansion of the dairy industry.
 Organization of unit of Maryland State Dairymen's Association.
 Introduction of purebred dairy animals.
 Operation of cow testing associations during ten-year period.
 Increased use of home grown feeds.
 Improved production through better balanced rations.
 Cooperative purchase of high grade dairy feeds.
 Introduction of 204 purebreds through club members.
 Almost complete eradication of bovine tuberculosis (2,106 herds and 20,439 animals tested) in cooperation with regulatory officials.
 Improvement in sanitary conditions surrounding production and handling of milk.

LIVESTOCK:

Introduction of purebred swine.
 Organization of several breed associations.
 Improvement in housing, feeding and management of swine.
 Organization of boys' pig clubs and development of boys as breeders of swine.
 Progress in control of hog cholera through cooperation with regulatory officials.
 Increased use of pasture and forage crops for hogs.
 Cooperative purchase of feeder cattle.
 Organization of county Sheep Growers' Association.
 Pooling of wool.

POULTRY:

Introduction of purebred fowls.
 Progress in standardization of poultry breeds.
 Improvement in housing, feeding and management.
 More efficient production due to culling of flocks.
 Organization of boys' poultry clubs.
 Development of boys as poultry producers.
 Improvement in grading and packing of eggs.
 Organization of unit of Atlantic Coast Poultry Producers' Association.

FRUIT CROPS:

Improvement in quality of tree fruits.
 Better and more systematic spraying schedules followed in commercial orchards.
 Better care of home orchards.
 Better control of insect and disease pests.

CANNING AND TRUCK CROPS:

Expansion of canning crops production.
 Improvement in methods of producing tomato plants as a result of central plant beds.
 Improvement in yield and quality of canning tomatoes due to better plants and better cultural methods.
 Selection and saving of quantities of tomato seed (about 500 pounds saved in 1924).
 Introduction of wilt resistant tomato seed.
 Keeping of records to show cost of tomato production.
 Instruction of club members in methods of tomato production.
 Instruction of club boys in proper methods of producing potatoes.
 Improvement in production methods resulting from club demonstrations.

SOIL IMPROVEMENT:

Increased and more efficient use of lime.
 Increased use of high analysis fertilizers.
 Home mixing of fertilizers more generally practised.
 Increased production of legume crops.
 Increased use of cover and green manure crops.

BOYS' CLUB WORK:

Organization of boys' dairy, calf, pig, poultry, tomato, corn and potato, beans and garden clubs.
 Enrollment increased from 29 in 1916 to 484 in 1924.
 Value of crops grown and livestock owned increased from \$3,467.40 in 1918 to \$73,569 in 1924.
 Introduction of 204 purebred dairy animals through club members.
 Establishment of purebred dairy herds by club members.
 Introduction and distribution of several hundred purebred swine through club members.
 Establishment of purebred swine herds by club members.

Training of club members in dairy cattle judging. (Harford County team won National Dairy Show Contest in 1922 and trip to Europe.)
 Exhibition of club products in county, State and national shows.
 Establishment of annual club encampment.
 Establishment of members in commercial poultry enterprises.
 Formation of Boys' Club Federation.

ORGANIZATION:

Organization of unit of Maryland State Dairymen's Association.
 Organization of Granges.
 Organization of Harford County Farm Bureau.
 Organization of several swine breed associations.
 Formation of numerous boys' clubs.
 Organization of Farm Bureau Cooperative which made purchases totaling \$265,273 in 1924.
 Organization of County Farm Loan Association.
 Organization of Seed Corn Growers' Association.
 Pooling of wool.
 Organization of Sheep Growers' Association.
 Organization and rehabilitation of Harford County Fair Association.

HOME WORK:

Organization of eight rural women's clubs.
 Formation of county federation of Rural Women's Clubs.
 Organization of 31 girls' clubs.
 Formation of Junior Club Federation.
 Program work with Grange and Farm Bureau locals.
 Establishment of county camp for club members.
 Development of local leaders in women's and girls' work.
 Larger participation in community, county and State fair exhibits by women and girls.
 Improvement in food selection and meal planning.
 Home economies effected through improved methods of home sewing and millinery.
 Introduction of home labor saving devices and methods.
 Improved methods of food preservation practised.

HOWARD COUNTY**COUNTY AGRICULTURAL AGENTS**

J. L. Fidler, 1917-1919.
 R. L. Post, 1920-1922.
 M. H. Fairbank, 1922-1924.
 W. M. Garrison, 1924 (Asst.)
 E. K. Walrath, 1924 to date.

HOME DEMONSTRATION AGENT

Mrs. N. C. Lawson, 1918-1920.

Measured by population and land area, Howard County is one of the small counties of Maryland. Its total population is but 15,826 and there are but two counties with smaller numbers of people. Its land area is 160,000 acres. The agriculture of the county, however, is well developed and the county is seventh in the percentage of farm land improved, more than 73 per cent of the land area being in this class.

A general system of agriculture prevails throughout the county. Dairying, however, has increased rapidly and there has been a considerable development in the production of truck and canning crops.

Howard occupies fourteenth place among the counties of the State in the value of all farm property, \$15,510,728 representing this valuation. The value of all domestic animals on farms totals \$1,691,433 and on this item the county ranks eleventh. All crops produced in the county are valued at \$3,697,641 which places the county twelfth in this respect. Receipts from the sale of dairy products amount to \$389,428 yearly; and from the sale of chickens and eggs, \$204,640.

Extension Service Work was inaugurated in Howard County in 1917. There have been several changes in the county agents

employed in that time, and prior to 1922 the work seemed to make but little headway. Since then, however, there has been a marked improvement in the attitude of the people to the work and their support and cooperation have been responsible for much substantial progress. Among some of the developments which have taken place and to which the Extension Service has contributed the following may be noted:

FARM CROPS:

- Improvement in corn yields due to seed selection.
- Increased interest in selection and testing of seed corn, particularly to control root rot.
- Introduction and distribution of higher yielding strains of wheat.
- Reduction of losses on wheat due to treatment for anguimois moth.
- Introduction of soybeans and other legumes.
- Increased use of inoculation for legume crops.

DAIRYING:

- Expansion of the dairy industry.
- Organization of unit of the Maryland State Dairymen's Association.
- Formation of cow testing association.
- Improvement in management and feeding for economical production.
- Introduction of purebred dairy animals.
- Improvement in sanitary conditions surrounding the production and handling of milk.
- Progress in the eradication of bovine tuberculosis.
- Instruction of club members in dairy cattle judging.
- Introduction of purebred dairy animals through club members.

LIVESTOCK:

- Introduction of purebred swine.
- Progress in standardization of swine breeds in communities.
- Improvement in feeding, management of swine.
- Progress in control of hog cholera in cooperation with regulatory officials.
- Introduction of purebred sheep.
- Pooling of wool.

POULTRY:

- Expansion of the poultry industry.
- Improvement in housing, feeding and management of poultry.
- Culling more generally practised for efficient production.
- Progress in standardization of farm flocks.
- Organization of boys' poultry clubs.
- Introduction of purebred fowls.
- Encouragement of poultry exhibits.

FRUIT CROPS:

- Organization of four spray rings with 66 members owning 6,505 trees.
- Improvement in quality of fruit produced.
- Better pruning methods practised.
- Improved spraying schedules followed.
- Improvement in grading and packing of tree fruits.

CANNING AND TRUCK CROPS:

- Development of canning crops industry.
- Improved methods of producing tomato plants adopted, following central plant bed demonstrations.
- Introduction of better quality seed potatoes.
- Production of seed potatoes for certification.

SOIL IMPROVEMENT:

- More efficient use of lime.
- Increased use of high grade fertilizers.
- Increased production of legume crops.

ORGANIZATION:

- Organization of unit of Maryland State Dairymen's Association.
- Organization of Granges.
- Organization of farmers' clubs.
- Organization of boys' and girls' clubs.
- Organization of Howard County Farm Bureau with nine locals and 352 members.
- Formation of wool pool.
- Organization of four spray rings.
- Organization of Farm Bureau Cooperative Association which did business amounting to \$62,000 in 1924.
- Organization of County Farm Loan Association.

BOYS' CLUB WORK:

- Organization of boys' poultry, pig and calf clubs.
- Introduction of purebred animals through club members.
- Instruction of boy club members in dairy cattle judging.

KENT COUNTY

COUNTY AGRICULTURAL AGENTS

L. L. Burrell, 1916-1918.
H. B. Derrick, 1919 to date.

HOME DEMONSTRATION AGENTS

Miss H. L. Comstock, 1915-1917.
Miss A. L. Copper, 1917-1919.
Miss S. V. Hill, 1919 to date.

Large farms and a high percentage of tenancy are characteristic factors in the agriculture of Kent County. The acreage per farm in Kent County averages larger than in any other county of the State and more than half of its farms are operated under a tenant system.

Pretty largely the county is devoted to a general system of farming, but dairying and the production of tomatoes for canning have been developed extensively and have done much to improve the agricultural situation. The county is nineteenth in land area with a total of 180,480 acres. The population is 15,026. The value of all farm property is placed at \$16,369,227 and in this respect the county holds thirteenth rank in the State. In the value of all domestic animals the county is ninth and in the value of all crops eighteenth. The value of all crops grown is placed at \$3,328,561; receipts from the sale of dairy products amount to \$572,081; and chickens and eggs return yearly revenues of \$116,041.

Both county and home demonstration agents have been on duty in Kent County since 1916 and both lines of work have produced splendid results and have won the cordial support of the people. Very marked improvement in the agriculture of the county has been noted during the period of Extension Service Work and some features of the progress made may be summarized as follows:

FARM CROPS:

- Introduction of purebred varieties of corn, such as Johnson County White and the high yielding strains of Reid's Yellow Dent.
- Introduction of 140 bushels of purebred seed corn in one year.
- Improvement in selecting seed corn, particularly to escape injury from root rot.
- Establishment of several large and important sources of purebred seed corn.
- Instruction of club boys in production of seed corn and production of considerable purebred seed through this means.
- Improvement in cultural methods for growing corn.
- Encouragement of seed corn growers to exhibit at State and national shows.
- Introduction of purebred and high yielding varieties of wheat such as improved Currell's Prolific, Mammoth Red and improved Mammoth Red, resulting in increased yields.
- Establishment of several large and reliable sources of seed wheat.
- Introduction and increasing use of formalin treatment of wheat control.
- Production of wheat to meet the requirements for certified seed.
- Use of clover seed adapted to county conditions, thus preventing losses from poor seed.
- Introduction of sweet clover as a crop.
- Introduction of soybeans for hay and seed. Crop now grown on 2,500 acres.
- Large increase in acreage of alfalfa, largely due to better knowledge of its culture.
- General use of inoculation for legume crops.

DAIRYING:

- Organization of unit of Inter-State Milk Producers' Association.
- Establishment of cooling stations.
- Organization and operation of cow testing association.
- Improvement in dairy barns and in conditions under which milk is produced.
- Introduction of numerous purebred sires.
- Introduction of higher producing cows.
- More general production of home grown feeds.
- Increased use of legume hay in rations for dairy animals.

Placing of more than 60 herds under federal supervision in tuberculosis eradication campaign.

Introduction of purebred animals through club members.

Training of boy club members in dairy cattle judging.

Increased interest in good dairy cattle through exhibits in local and State shows.

FRUIT CROPS:

Improvement in the production of tree fruits

Increased use of sprays for insect and disease control.

Adoption of spraying recommendations by practically all commercial orchards in the county.

Adoption of improved pruning practises.

TRUCK CROPS:

Advancement in selecting and saving tomato seed.

Improvement in yields through production of better plants.

Adoption of community plant bed method of growing tomato plants.

More general use of fertilizers, manures, etc., in tomato production.

Cooperation in the sale of the tomato crop.

Plant production methods improved through demonstrations.

Introduction of improved varieties of asparagus.

Use of improved asparagus fertilizers.

LIVESTOCK:

Introduction of purebred swine, especially through demonstrations by boy club members.

Increased use of pasture and green forage crops for swine.

Improvement in sanitation in the production of swine.

Improvement in feeding methods and management.

Progress in the prevention and control of hog cholera in cooperation with regulatory officials.

SOIL IMPROVEMENT:

Increased use of lime.

More economical use of lime as a result of tests on one thousand fields for soil acidity.

Increased use of high analysis fertilizers.

Adoption of better crop rotations.

More general use of legume crops.

BOYS' CLUB WORK:

Instruction of club members in proper methods of corn production.

Introduction and distribution of purebred seed corn through club members.

Introduction and distribution of purebred swine through club members.

Instruction of club members in methods of swine management.

Introduction of purebred dairy animals through club members.

Instruction of club members in management of dairy cattle.

Instruction of club members in judging dairy cattle.

Stimulation of interest in purebred dairy cattle as a result of State milk record made by club member's cow.

Production of 400,000 tomato plants for growers of Kent County by club members who demonstrated production methods.

ORGANIZATION:

Organization of local Granges.

Organization of farmers' clubs and community clubs.

Organization of Kent County Farm Bureau.

Formation of unit of Inter-State Milk Producers' Association.

Organization of Kent County Farm Bureau Cooperative Association, which handled \$53,123 worth of cooperative purchases in 1924.

Organization of community shows.

Organization of County Farm Loan Association.

POULTRY:

Introduction of purebred fowls.

More general employment of culling in farm and commercial flocks.

Better control of poultry diseases.

Improvement in methods of feeding and management.

Instruction of club members in poultry management.

HOME WORK:

Organization of Kent County Council of Rural Women.

Organization of seven rural women's clubs with 356 members.

Organization of eight girls' clubs with 122 members.

Introduction of many home labor saving devices and methods.

Home economies made possible through instruction in home making of clothing and millinery.

Improvement in the selection of foods and planning of meals as a result of nutrition studies.

Improvement in the care and in the production of the home poultry flock.

Improvement in methods of food preservation.

Community improvements effected, including school grounds.

Establishment of community market for the sale of home products.

Development of leadership among women and girls.

Increased knowledge of home health and sanitary measures.

MONTGOMERY COUNTY

COUNTY AGRICULTURAL AGENTS

F. J. Van Hoesen, 1916-1921.
 W. C. Snarr, 1921 to date.
 P. Calvert Cissel, 1923 to date (Asst.)

HOME DEMONSTRATION AGENTS

Miss Isabel Kingdon, 1915.
 Miss H. I. Erickson, 1917-1918.
 Miss C. M. Cowsill, 1918-1922.
 Miss B. A. Corwin, 1922 to date.

So far as population goes, Montgomery County, with 34,921 people stands seventh among the counties of Maryland. Its land area of 333,440 acres ranks it fifth in size. The county is generally suited to agricultural pursuits and the usual farm crops constitute the bulk of its agricultural production. Lying close to the City of Washington, the county has developed an extensive dairy industry and a very considerable small trucking industry.

The county stands third in the value of all its farm property which is worth \$34,303,210. It is fourth in the value of domestic animals on farms and fifth in the value of crops produced. The annual value of its crops is placed at \$6,755,702; receipts from the sale of dairy products total \$937,589; while the sale of chickens and eggs yields \$334,109 annually.

Montgomery county has had the service of both county and home demonstration agents since 1916. The work has had encouraging support from the people of the county. The agricultural resources of the county have been materially developed during the past ten years and some features of the progress to which the Extension Service has contributed may be summarized as follows:

FARM CROPS:

- Introduction of purebred and higher yielding varieties of corn.
- Introduction of purebred varieties of wheat.
- Establishment of sources of purebred seed corn.
- Expansion of acreage devoted to legume crops, such as alfalfa and clovers.
- Expansion of the acreage devoted to soybeans from 300 to 3,000 acres for hay or pasture.
- Development of soybean production for seed.
- Increased use of inoculation for legume crops.

DAIRYING:

- Introduction of many purebred sires—75 in the last three years.
- Introduction of purebred and higher producing cows.
- Organization of county unit of Maryland-Virginia Milk Producers' Association.
- Organization of several breed associations.
- Promotion of sales of purebred cattle among breeders.
- Organization of boys' calf clubs with 48 members and the introduction of purebred animals by this means.
- Improvement in methods of feeding and management.
- Greater production of home grown feeds.
- Organization and operation of six cow testing associations, three of which are now in operation, involving 68 members and 1400 cows.
- Training of club members in dairy cattle judging.
- Development of dairy cattle exhibits at Rockville Fair.
- Erection of many silos and increased use of ensilage.
- Improvement in production of milk from sanitary standpoint.
- Cooperative shipment of milk by truck.
- Big advance in the testing of herds for tuberculosis and more than half the cattle of the county tested in cooperation with regulatory officials.

LIVESTOCK:

- Introduction of purebred swine.
- Organization of boys' pig clubs.
- Training of club members in swine management.
- Increase in number of purebred swine at local and State exhibits.

POULTRY:

- Introduction of purebred poultry.
- Organization of boys' and girls' clubs to stimulate interest in efficient poultry production.
- Increase in number of exhibits at county fair.
- Exhibits of poultry at State fair and Baltimore Poultry Show.

SOIL IMPROVEMENT:

- Increased use of lime.
- Cooperative purchase of lime and fertilizer.
- Increased use of high analysis fertilizer.
- Increased acreage devoted to legume crops.

BOYS' CLUB WORK:

- Organization of boys' calf clubs with 48 members.
- Organization of boys' pig clubs.
- Organization of boys' poultry clubs.
- Demonstration of methods of corn production through club members.

TRUCK CROPS:

- Organization of cooperative sales agency for vegetable crops.

ORGANIZATION:

- Organization of Granges and farmers' clubs.
- Organization of Montgomery County Farm Bureau.
- Organization of Farm Bureau Supply Company to handle cooperative purchases for farmers.
- Formation of a cooperative marketing association which has done \$32,000 of business in two years.
- Formation of unit of Maryland-Virginia Milk Producers' Association, handling more than half a million dollars' worth of milk annually.
- Organization of County Farm Loan Association.

HOME WORK:

- Organization of nine women's clubs, with a total membership of 219.
- Organization of 31 girls' clubs, with a membership of 214.
- Installation of home saving devices.
- Much use of interior decoration and home furnishing suggestions.
- Home economies resulting from instruction in sewing and in making of clothing.
- Instruction to club women and girls in millinery.
- Instruction in making of rugs.
- Improvement in meal planning and food selection as a result of nutrition studies.
- Employment of better health and sanitary measures.

PRINCE GEORGE'S COUNTY

COUNTY AGRICULTURAL AGENTS

- G. C. Townshend, 1914-1915.
- C. H. Taylor, 1917-1919.
- W. B. Posey, 1920 to date.

HOME DEMONSTRATION AGENTS

- Miss Lillian Hennaman, 1916.
- Miss S. F. Ward, 1917.
- Miss Isabelle Fewell, 1918.
- Miss E. L. Davis, 1919-1924.

While the agriculture of Prince George's County is well diversified and all the major farm crops are produced in quantity, the outstanding crop in point of value is tobacco. The county annually devotes something like 6,800 acres to the production of this crop and in acreage and total production leads all the other counties of the State.

Prince George's County is seventh in size among the counties of the State with a land area of 308,480 acres. Its population of 43,347 is largely suburban and the agricultural areas are rather thinly peopled. The value of all farm property in the State is placed at \$20,229,384 and in this respect the county holds eighth rank. In the value of domestic animals on farms

the county is thirteenth and in the value of all crops eighth. Farm animals are valued at \$1,485,188 and all crops at \$4,855,492. Receipts from the sale of dairy products amount to \$191,396 annually and from the sale of chickens and eggs \$154,607.

In 1916 both county and home demonstration agents were placed in Prince George's County on full-time although earlier work had been done by the U. S. Department of Agriculture. There has been some slight interruption in the service but in the main work has progressed steadily and has been productive of very satisfactory results. The work has been well supported by the people of the county and there has been a growing appreciation of the work. Some of the developments that have taken place and to which the Extension Service has contributed may be cited as follows:

FARM CROPS:

- Introduction of Maryland Mammoth Tobacco, developed by Maryland Experiment Station, resulting in increased tobacco yields.
- Grading of tobacco seed to secure better plants.
- More adequate knowledge of tobacco fertilizers, resulting in increased yields and improved quality.
- Introduction of vetch as a cover crop and soil improving crop in tobacco rotation.
- Introduction of purebred and higher yielding varieties of corn.
- Increased acre yields of corn as a result of demonstrations in seed selection, particularly with reference to root rot.
- Improvement in yield and quality of wheat by introduction of Mammoth Red, developed by the Maryland Experiment Station.
- Construction of tobacco barns of greatly improved design.
- Introduction and more general use of methods for control of tobacco diseases.
- Introduction of other legume crops, such as sweet and crimson clover and soybeans.
- Increased use of inoculation for legume crops.

DAIRYING:

- Introduction of purebred and higher producing dairy cattle.
- More adequate knowledge of feeding dairy cattle and increased use of home grown feeds.
- Testing of 35 herds of dairy cattle for tuberculosis in cooperation with regulatory officials.
- Increased interest in exhibits of dairy cattle at community shows and fairs.
- Instruction of club members in dairy cattle judging and management.
- Construction of improved dairy barns and silos.

FRUIT CROPS:

- More general use of sprays in home orchards.
- Improved quality of tree fruits grown.
- Adoption of better pruning methods as a result of demonstrations.

TRUCK CROPS:

- More general use of efficient fertilizers for truck crops.
- Use of vetch and other cover crops to improve soil fertility.
- Improvement in methods of cantaloupe production.

LIVESTOCK:

- Introduction of purebred sheep and swine.
- Introduction of purebred swine through boy club members.
- Improvement in feeding and management of swine.
- Improvement in feeding and management of sheep.
- Instruction of club members in breeding and management of swine.
- Better control of hog cholera through cooperation with regulatory officials.

POULTRY:

- Introduction of purebred fowls.
- Cooperation with Baltimore & Ohio Railroad in introduction of purebred fowls through club members.
- Improvement in housing, feeding and management of poultry.
- Practise of culling poultry flocks for increased egg production.

SOIL IMPROVEMENT:

Improvement in crop rotations.
 Increased production of legumes.
 More extensive use of cover crops.
 Increased use of lime.
 More intelligent use of fertilizers.
 Drainage of considerable areas of low lands.

ORGANIZATION:

Organization of local Granges.
 Organization of Prince George's County Pomona Grange.
 Organization of farmers' clubs and community clubs.
 Formation of Prince George's County Community Council.
 Organization of Farm Bureau with 13 locals and about 250 members.
 Organization of unit of Maryland Tobacco Growers' Association with about 750 members.
 Organization of County Farm Loan Association.
 Organization of Prince George's County Farm Bureau Cooperative Association.
 Assistance in establishment of Southern Maryland Cooperative Creamery at Waldorf.

BOYS' CLUB WORK:

Organization of many boys' clubs.
 Instruction of club members in proper methods of producing potatoes, tobacco, swine, poultry and calves.
 Improvement of methods resulting from club work among farmers of the county.

HOME WORK:

Organization of 15 women's clubs with 187 members.
 Organization of 15 girls' clubs with 245 members.
 Women and girls instructed in home sewing and millinery.
 Women and girls instructed in basketry.
 Improvement in home grounds.
 Improvement in methods of food preservation.
 Increased interest in proper selection of foods and meal planning.
 Introduction of home labor saving devices and methods.
 Improvement in home sanitation.
 Development of 50 local leaders in home demonstration work.

QUEEN ANNE'S COUNTY**COUNTY AGRICULTURAL AGENTS**

H. S. Koehler, 1914-1916.
 E. A. White, 1916.
 O. C. Jones, 1917-1922
 E. W. Grubb, 1923 to date.

HOME DEMONSTRATION AGENTS

Miss L. E. Allen, 1917-1918.
 Miss M. L. Byrn, 1919-1920.

The 16,001 people making up the population of Queen Anne's County all live on farms or in small towns. Pretty largely a general system of farming is followed. There has been a considerable development of the dairy industry in recent years and the production of tomatoes for canning is an important industry in certain sections. There is a large per cent of tenancy in the county.

The county is sixteenth in land area with a total of 233,600 acres. In general the farms of the county are large and the percentage of improved farm land averages high. The total value of all farm property in Queen Anne's County is placed at \$17,963,083 which places the county tenth in this respect. In the value of the domestic animals on farms the county holds seventh rank and fourteenth in the value of all crops produced. The annual value of all crops is placed at \$3,662,210; receipts from the sale of dairy products total \$510,767 and from the sale of chickens and eggs \$127,944.

County agent work has begun in Queen Anne's County in 1914 and has been maintained since then with but few changes

in personnel. A home demonstration agent was employed in this county in 1917-18 but with the withdrawal of emergency funds, the county did not desire to continue the work. The people of the county have demonstrated a splendid spirit of cooperation and the men's work has been well received and appreciated. Some of the progress that might be pointed out and in which the Extension Service has had a part includes the following:

FARM CROPS:

- Introduction of purebred and higher yielding varieties of corn.
- More general selection of seed corn, particularly with reference to root rot.
- Establishment of sources of quality seed corn.
- Improvement in cultural methods of corn.
- Introduction of legume crops, including alfalfa, clovers and soybeans.
- Development of soybean seed production.
- Introduction of higher yielding varieties of wheat.
- Better use of fertilizers.

DAIRYING:

- Expansion of the dairy industry.
- Establishment of cooling stations.
- Erection of numerous silos.
- Organization of two purebred bull associations, to improve quality of dairy animals.
- Introduction of many purebred sires and cows of high producing quality.
- Improvement in the production of milk from a sanitary standpoint.
- The adoption of better feeding methods.
- Improvement in dairy barns.
- Testing of 70 herds for tuberculosis.
- Training of club boys in dairy judging.

LIVESTOCK:

- Introduction of purebred swine.
- Introduction of purebred sheep.

POULTRY:

- Improvement in efficiency of farm flocks through culling.
- Adoption of better feeding methods.

VEGETABLE CROPS:

- Improvement in tomato yields through better methods of plant production.
- Organization of tomato growers for sale of tomatoes cooperatively.
- Distribution of wilt resistant tomato seed.
- Saving of 80 pounds of tomato seed from selected plants.

SOIL IMPROVEMENT:

- Increased use of lime.
- Increased use of high analysis fertilizers.
- Increased production of legume crops.

BOYS' CLUB WORK:

- Instruction of club members in methods of swine production.
- Instruction of club members in judging dairy cattle.

ORGANIZATION:

- Formation of Queen Anne's County Farm Bureau.
- Organization of units of Inter-State Milk Producers' Association.
- Formation of Queen Anne's County Tomato Growers' Association.
- Organization of local cooperative purchasing agency.
- Organization of community show.

HOME WORK:

- Several women's clubs were organized during 1917-1918.
- Much work done in food preservation, labor saving devices, etc.

ST. MARY'S COUNTY**COUNTY AGRICULTURAL AGENT**

G. F. Wathen, 1911 to date.

HOME DEMONSTRATION AGENTSMiss M. L. Mattingly, 1914-1918.
Miss Katherine Murrin, 1919-1920.
Miss Ethel Joy, 1920 to date.

While tobacco is the outstanding crop grown in St. Mary's County, other farm crops are produced extensively throughout the county. While the livestock industry is not particularly prominent, there has been some development in recent years in the production of sheep and especially in the production of early market lambs.

In population the county ranks nineteenth with 16,112 people. The land area consists of 237,440 acres, more than half of which is unimproved. The county is nineteenth in the value of all farm property with a total valuation of \$11,018,018. In the value of domestic animals on farms, the county is twentieth, this value being placed at \$950,180. The value of all crops is placed at \$2,772,135 and in this respect the county holds the same rank as in the value of domestic animals. Annual receipts from the sale of dairy products amount to \$17,879; and from the sale of poultry and eggs, \$130,421.

Extension Service Work in St. Mary's County was begun in 1914. The same county agent has been on duty continuously since that time and only one other county of the State has a similar record. The work has received the support of the people and has been growing in favor. Some of the agricultural developments that have taken place in the county and to which the Extension Service has contributed are cited as follows:

FARM CROPS:

- Introduction of purebred and higher yielding varieties of corn.
- Improvement in yield resulting from seed corn selection and testing.
- Introduction of higher yielding varieties of wheat.
- Introduction of soybeans, alfalfa and other legume crops.
- Introduction of Maryland Mammoth Tobacco, developed by the University of Maryland Experiment Station.
- Improvement of crop rotation that includes tobacco.
- Increased use of efficient tobacco fertilizers.

DAIRYING:

- Introduction of purebred dairy cattle.
- Improvement in feeding and management of dairy cattle.
- Testing of some dairy herds for tuberculosis.

LIVESTOCK:

- Expansion of the sheep industry.
- Introduction of purebred sheep.
- Improvement in feeding and management of sheep.
- Introduction of purebred swine.
- Better control of hog cholera in cooperation with regulatory officials.

POULTRY:

- Gradual expansion of the poultry industry.
- Introduction of purebred fowls.
- Improvement in housing, feeding and management.

FRUIT CROPS:

- Improvement in quality of tree fruits.
- More general use of sprays for control of insects and diseases.

SOIL IMPROVEMENT:

- Increased use of lime.
- Use of more efficient fertilizers.
- Improvement in crop rotations.
- Introduction and more extensive culture of legumes.

BOYS' CLUB WORK:

- Organization of boys' clubs.
- Instruction of club members in dairy cattle judging.
- Demonstration of proper corn producing methods through boys' clubs.
- Demonstration of better methods of swine management through boys' clubs.

ORGANIZATION:

- Organization of unit of Maryland Tobacco Growers' Association.
- Organization of community clubs.
- Organization of boys' clubs.
- Organization of St. Mary's County Farm Bureau.
- Organization of County Farm Loan Association.

HOME WORK:

- Organization of women's clubs.
- Formation of County Council of Women's Clubs.
- Organization of girls' clubs.
- Aided in program work of Farm Bureau locals.
- Formation of county federation of girls' clubs.
- Introduction of home labor saving devices and methods.
- Home construction of clothing and millinery.
- Improved methods of food preservation.
- Operation of community club store for sale of home made products.
- Improvements in home sanitation.
- Increased interest and knowledge of food selection and meal planning.
- Improvement in home poultry production, due to demonstrations in housing, feeding, management and culling.

SOMERSET COUNTY**COUNTY AGRICULTURAL AGENTS**

H. S. Lippencott, 1915-1917.
C. Z. Keller, 1917 to date.

HOME DEMONSTRATION AGENT

Miss M. L. Mills, 1918-1922.

Somerset County, with a population of 24,602 and a land area of 211,840 acres, is among the small counties of the State both in population and area. It ranks twelfth in population and seventeenth in land area. All farm property is valued at \$10,302,940 and in this respect the county stands twenty-first among the counties of the State.

In the value of domestic animals on farms, totaling \$822,282, the county stands twenty-first while in the value of all crops, aggregating \$3,646,164 annually, the county stands fifteenth. Receipts from the sale of dairy products total \$62,209, and from the sale of chickens and eggs, \$161,227.

While all of the farm crops are grown in Somerset County, small fruits and truck crops supply the greater part of the revenue from the agricultural lands. Somerset leads the counties of the State in strawberry production and, in fact, is one of the leading counties in the United States in the production of this fruit. Fresh tomatoes for early markets, tomatoes for canning and potatoes are also important products.

Much of the land of Somerset county is low and proper drainage is necessary to make it productive. The develop-

ment in drainage in the past ten years has been marked and has been one of the outstanding features of the county's agricultural progress. The county's agricultural development along many lines has been noteworthy and the Extension Service has helped with the following achievements:

FARM CROPS:

- Introduction and distribution of purebred seed corn.
- Improvement in selection of seed corn and increase in number of farmers testing seed.
- Improved yields of corn, resulting from selection of seed with reference to control of root rot.
- Increased use of silage corn on dairy farms.
- Establishment of sources of purebred seed corn.
- Introduction of purebred and higher yielding varieties of wheat.
- Progress in control of wheat smut through treatment of seed.
- Establishment of sources of purebred seed wheat.
- Introduction of soybeans as a crop.
- Development of soybean seed industry. (About 4,000 bushels grown in 1923.)
- Increased production of alfalfa.
- Introduction and increased production of other legume crops.
- More general use of inoculation for legume crops.

DAIRYING:

- Introduction of purebred dairy cattle.
- Improvement in production of dairy animals.
- Erection of 18 silos.
- Improvement in methods of feeding and management.
- Progress in eradication of bovine tuberculosis through testing.
- Improvement in conditions surrounding production and handling of milk.

LIVESTOCK:

- Introduction of purebred swine.
- Organization of boys' pig clubs.
- Improvement in housing, feeding and management of swine.
- Greater use of pasture crops in producing swine.
- Progress in control of hog cholera in cooperation with regulatory officials.
- Introduction of purebred sheep.
- Pooling of wool.

POULTRY:

- Expansion of poultry industry.
- Introduction of purebred fowls.
- Improvement in housing, feeding and management of poultry.
- More efficient production due to knowledge of culling.
- Cooperative purchase of high grade poultry feeds.
- Improvement in grading and packing of eggs.

FRUIT CROPS:

- Improvement in pruning and spraying practises in home orchard.
- Improvement of strawberry varieties.
- Improved fertilizer practises employed in production of strawberries.
- Better control of strawberry insect pests through dusting.
- Improvement in marketing strawberries through the auction block method and through the Eastern Shore of Virginia Produce Exchange.

VEGETABLE AND TRUCK CROPS:

- Introduction of wilt resistant strains of tomatoes.
- Organization of tomato growers and compilation of figures to show cost of producing tomatoes.
- Improved methods of producing tomato plants, including the coldframe and the central plant bed methods.
- Development of production of early tomatoes for northern markets.
- Establishment of cooperative canning enterprise, the first in the State.
- Introduction of improved potato seed.
- Improvement in use of fertilizers for potatoes.
- Production of seed for certification (2100 bushels in 1924).
- Reduction of losses from Mosaic diseases by introduction of non-susceptible varieties and by selection.
- Development in the production of other truck crops such as cucumbers, string beans and lima beans.

FORESTRY:

- Increased care in the cutting of timber.
- Increased interest in the value of thinning of forest tracts.
- More interest in the saving of seed trees.

SOIL IMPROVEMENT:

- Passage by the legislature of a suitable law to permit effective drainage work.
- Construction of 16 tax ditches, 59 miles in length, with an assessed acreage of 35,835 acres.
- Savings in the cost of digging ditches by the use of dynamite.
- More efficient use of lime, due to numerous soil tests.
- Increased production of legume crops.
- Improved crop rotations.
- Distribution of nitrate of soda during the war.
- Increased use of high analysis fertilizers.
- Cooperative purchase of fertilizers.

BOYS' CLUB WORK:

- Organization of boys' corn, potato, tomato, poultry and pig clubs.
- Instruction of club members in methods of producing crops and livestock.

ORGANIZATION:

- Organization of Somerset County Agricultural Association.
- Formation of Somerset County Soybean Growers' Association.
- Organization of land owners for construction of tax drainage ditches.
- Organization among swine growers to combat hog cholera.
- Organization of pool for purchase of feed, amounting to 750 tons in 1924 and representing a saving of about \$10,000.
- Organization of unit of Eastern Shore of Virginia Produce Exchange for sale of potato crop.
- Establishment of auction block for sale of strawberries.
- Organization of cooperative tomato canning enterprise.
- Formation of Farm Loan Association with about 50 borrowers, and loans secured amounting to \$160,000.
- Organization among tomato growers to secure data on production costs of growing tomatoes.
- Formation of pools for purchase of fertilizers.

TALBOT COUNTY**COUNTY AGRICULTURAL AGENT**

E. P. Walls, 1914 to date.

HOME DEMONSTRATION AGENT

Mrs. O. K. Walls, 1915 to date.

Talbot County with a population of 18,306 and a total land area of 171,520 acres, is largely devoted to general farming with the production of canning crops, dairy products and orchard fruits among the important specialized industries.

Although twentieth in land area, the county ranks ninth in the value of all farm property, tenth in the value of domestic animals on farms and sixteenth in the value of all crops produced. Census figures put the annual value of all crops grown in the county at \$3,472,834 while the receipts from the sale of dairy products amounted to \$278,789 and the receipts from chickens and eggs total \$123,458 yearly.

Talbot County was one of the first counties in the State to secure a county agent with the organization of the Extension Service in 1914. The work has been continued uninterruptedly during the ten-year period and has been an important factor in the agricultural development that has taken place.

Among the important developments in the county which the Extension Service has helped to bring about may be cited the following:

FARM CROPS:

- Introduction of purebred strains of corn.
- Introduction of Gifford's Yellow Dent corn, a high-yielding variety, particularly adapted to certain soils of the county.
- Establishment of sources of seed corn in the county.
- Introduction of purebred strains of smooth and bearded wheats.
- Establishment of sources of purebred seed wheat.

More extensive use of rye as a cover crop.
Increased planting of alfalfa, in the production of which the county now ranks second.
Introduction of the soybean as a crop and the establishment of seed sources.
Increased production of other legume, hay and pasture crops.

DAIRYING:

The establishment of two additional milk cooling stations.
Vast improvement in the production of clean milk.
Increased home consumption of milk by a better understanding of its value in the diet.
The operation of a cow testing association and the consequent improvement in the average production per cow.
Improvement in feeding methods of dairy cattle.
The testing of 146 herds for tuberculosis in cooperation with regulatory officials.
An increase in the number of silos from 70 to 237.
The introduction of numerous purebred sires and purebred or high grade dairy cows.

CANNING CROPS:

The introduction of wilt resistant tomato seed.
The establishment of community tomato plant beds and a general improvement in methods of production which have increased acre yields.
The growing of early tomatoes for northern markets.
The testing of canning peas for resistance to root rot and the establishment of a resistant strain of high quality.

FRUIT CROPS:

The quadrupling of orchard plantings.
Vast improvement in the production of quality fruit.
The following of Extension Service recommendations by practically every commercial orchard in the county.
The establishment of shipping point inspection for peaches and apples.

LIVESTOCK:

The organization of swine growers to assist in the control of hog cholera.
A better understanding of sanitary measures necessary in swine production that has greatly reduced losses from hog cholera.
The marketing of wool in the form of blankets that has added more than 30 cents a pound annually to the price of this product.

SOIL IMPROVEMENT:

A far more general use of home mixed fertilizers as a result of better information and knowledge regarding fertilizer ingredients.
A more general and intelligent use of lime as the result of repeated soil testing demonstrations.
Increased production of legumes, cover crops, etc.
Better rotations as the result of farm management demonstrations.

BOYS' CLUB WORK:

A number of club members instructed in various phases of agriculture.
Eleven members enrolled in calf club work in 1924.

ORGANIZATION:

Units of Maryland State Dairymen's and Inter-State Milk Producers' Associations organized.
Cow testing associations formed.
Farm Advisory Committee formed.
Talbot County Farmers' Federation, composed of five county units, organized and \$11,153 of cooperative purchases made through this organization.
Formation of County Farm Bureau and local units with 352 members in ten locals.
Cooperative purchases through Farm Bureau totaled \$22,000.
Grange work promoted.
Organization of County Farm Loan Association.

HOME WORK:

Women's and girls' clubs organized.
Program of work with the Farm Bureau Locals and Grange.
Comfort station for rural women opened in Easton.
Many home labor saving devices installed.
Hundreds of women and girls taught to make clothing and millinery.
Baby shows held to promote interest in nutrition.
Better methods of canning introduced.
Poultry work with women and girls increased.
Home gardens encouraged.
Exhibits at community shows improved and increased.
Use of milk and other dairy products increased.

WASHINGTON COUNTY

COUNTY AGRICULTURAL AGENTS

T. L. Smith, 1917-1919.
 H. B. Derrick, 1919 (Asst.)
 S. E. Day, 1920-1922.
 M. D. Moore, 1922 to date.

HOME DEMONSTRATION AGENTS

Miss A. S. Jones, 1917-1919.
 Miss S. W. Frick, 1919-1921.
 Mrs. E. S. Bohannon, 1921.
 Miss S. S. Garberson, 1921-1924.
 Miss Margaret Smith, 1924 to date.

Washington County has a fortunate combination of prosperous agriculture and well established commercial enterprises. It is third among the counties of the State in population with 59,694 people, and in land area ranks ninth with 293,760 acres. The value of all its farm property is \$30,742,-835 and in this respect it ranks fifth.

The agriculture of the county is well diversified with the production of the major farm crops predominating. A considerable section of the county is broken by ranges of the Alleghany mountains and along the hillsides and foothills the production of tree fruits has been extensively developed. In the extent and value of the orchard industry, Washington County holds first place among the counties of the State and tree fruit production is the outstanding feature of the country's agriculture.

The value of all domestic animals on farms in Washington County is placed at \$2,878,463 and in this respect the county ranks sixth. It is fourth in the value of all crops which are given an annual value of \$8,621,742. Receipts from the sale of dairy products amount to \$538,431; and from the sale of chickens and eggs, \$371,341.

Extension Service Work in Washington County was begun in 1917, and while not launched so early as in some of the other counties of the State, has made good progress. The work has been well received by the people of the county and they have given it good cooperation and support. Some of the development that has taken place in the agriculture of the county during the period of Extension Service Work can be pointed out as follows:

FARM CROPS:

Introduction of purebred and higher yielding varieties of corn.
 Reduction in losses of corn due to selection for control of root rot.
 Establishment of sources of purebred seed.
 Introduction of purebred and higher yielding strains of wheat.
 Establishment of sources of purebred wheat.
 Increased production of alfalfa.
 Introduction of soybeans as a crop.
 Introduction and increased production of other legume crops.
 More general use of inoculation for legume crops.

DAIRYING:

Development of the dairy industry.
 Introduction of purebred dairy animals.
 More economical production of dairy products through increased use of home grown feeds.

Improved marketing facilities for whole milk by establishment of receiving stations by Philadelphia distributor.
Organization of unit of Inter-State Milk Producers' Association with 209 members.
Improvement in the sanitary conditions surrounding the production and handling of milk.
Cooperative purchase of dairy feed concentrates.
Improvement in quality of Hagerstown milk supply.
Organization of boys' calf club.

LIVESTOCK:

Introduction of purebred beef cattle.
Improvement in use of fattening rations for beef cattle.
Cooperative purchase of cottonseed meal by feeders of beef cattle.
Introduction of purebred swine.
Greater use of pasture crops for swine.
Improvement in housing, feeding and management of swine.
Progress in control of hog cholera through cooperation with regulatory officials.
Introduction of purebred sheep.
Improvement in quality of lambs produced.

POULTRY:

Introduction of purebred fowls.
Improvement in housing, feeding and management of poultry.
Organization of boys' and girls' poultry clubs.
Production of broilers given satisfactory trial.
Greater efficiency in production through culling.
Establishment of purebred flocks by club members.

FRUIT CROPS:

Improvement in quality of fruit produced.
Better and more systematic spraying schedules followed by commercial orchardists.
Inauguration of spray and weather service to improve efficiency of spraying.
Progress in establishment of cooperative packing houses.
Inauguration of Federal-State shipping point inspection for peaches and apples.

SOIL IMPROVEMENT:

More efficient use of lime.
Increased use of higher grades of fertilizer.
Cooperative purchase of fertilizers, and savings effected by home mixing.
Increased production of legume crops.

BOYS' CLUB WORK:

Organization of boys' poultry, pig, calf and potato clubs.
Introduction of purebred livestock through club members.
Instruction of club members in improved methods of producing crops and livestock.
Establishment of club members in poultry breeding.
Training of club members in dairy cattle judging.

ORGANIZATION:

Federation of local organizations into Washington County Farmers' Association.
Organization of farmers' and community clubs.
Formation of Granges.
Organization of Washington County Farm Bureau with 500 members.
Operation of Cow Testing Association from 1920 to 1923.
Organization of unit of Inter-State Milk Producers' Association.
Organization of cooperative packing house for orchard fruits.
Formation of cooperative buying and selling organizations.

HOME WORK:

Organization of ten women's clubs with 350 members.
Federation of women's clubs.
Establishment of loan fund for Washington County girl students at the University of Maryland.
Organization of 20 girls' clubs with about 450 members.
Introduction of home labor saving devices and methods.
Improvement in home sanitation.
Improvement in food selection and meal planning.
Home economies effected through instruction in clothing and millinery making.
Improvement in food preservation methods.

WICOMICO COUNTY

COUNTY AGRICULTURAL AGENTS

W. C. Vail, 1916-1917.
G. R. Cobb, 1918 to date.

HOME DEMONSTRATION AGENTS

Miss G. E. Cook, 1917-1918.
Miss R. F. C. Powell, 1918-1919.
Miss O. C. Mitchell, 1919-1920.
Miss Clara Mullen, 1920-1922.
Miss F. H. Mason, 1922 to date.

Standing fifteenth among the counties of the State in land area and with a very considerable portion of the farm land unimproved, Wicomico County has a comparatively limited agriculture. The county, however, is particularly adapted to the production of truck crops and while other farm crops are grown, small fruits and vegetables are the outstanding agricultural products.

The county's population of 28,165 places it tenth among the counties of the State. Its land area totals 237,440 acres. The value of domestic animals on farms is \$951,940 and gives the county nineteenth place in this respect. In the value of all crops produced, the county is ninth with a total production value of \$4,578,281. Receipts from the sale of dairy products amount to \$105,084 annually while sales of chickens and eggs annually yield \$257,572.

Extension Service Work was started in Wicomico County in 1916 and has been carried on continuously. The people of the county have shown an appreciation of the service and have supported the work encouragingly. Very definite progress has been shown in the agriculture of the county during the period of Extension Service Work and the Extension Service has contributed to the following progressive achievements:

FARM CROPS:

Introduction of higher yielding varieties of corn.
Introduction of soybeans.
Tremendous increase in production of legume crops for use as green manure, pasture and hay. (Increase from 1,526 to 6,197 acres.)
Substitution of green manure crops for manure in trucking areas, thus reducing production costs.
Greater use of inoculation for legume crops.

DAIRYING:

Development of the dairy industry.
Introduction of purebred dairy animals.
Improvement in feeding and management of dairy animals.
Progress in keeping records of herd production.
Erection of 38 silos.
Progress in eradication of bovine tuberculosis in cooperation with regulatory officials. (Twenty-three herds of 497 cows tested.)
Organization of boys' calf club.
Improvement of Salisbury milk supply.

LIVESTOCK:

Establishment of purebred flocks of sheep.
Introduction of purebred swine.
Progress in control of hog cholera in cooperation with regulatory officials.

POULTRY:

Expansion of the poultry industry.
 Improvement in housing (563 improved type houses built and 313 remodeled).
 Introduction of standard bred fowls (877 farms now keeping standard bred poultry).
 Improvement in feeding and management.
 Improvement in grading and packing of eggs.
 More efficient production through culling.

FRUIT CROPS:

Improvement in quality of tree fruits produced.
 More systematic and efficient spraying schedules followed by commercial orchardists.
 Better control of insect pests and diseases.

VEGETABLE AND TRUCK CROPS:

Increased sweet potato production by efficient use of green manures and lime.
 Reduction of losses on cantaloupes through control of diseases and insect pests by dusting.
 Use of more efficient fertilizers for sweet potatoes.
 Reduction of sweet potato losses through treatment of seed for disease control.
 Improved marketing for cantaloupes, cucumbers and sweet potatoes.
 Improved production of tomato plants resulting from operation of central plant beds.
 Increased use of wilt resistant tomato seed.
 Use of better fertilizers for tomatoes.

SOIL IMPROVEMENT:

Increased and more efficient use of lime. (Yearly lime increase estimated at 1½ tons per farm.)
 More efficient use of lime, resulting from testing of soil from 786 farms, or thirty per cent of the farms in the county.
 Increased production of legume crops. (Acreage increased from 1,526 to 6,197.)
 More general use of high analysis fertilizers.

BOYS' CLUB WORK:

Organization of boys' poultry, pig, calf, corn, potato and tomato clubs.
 Instruction of boys in methods of producing livestock and crops.

ORGANIZATION:

Organization of Wicomico Farmers' Association.
 Formation of community leagues.
 Organization of boys' clubs.
 Formation of Granges.
 Organization of Pittsville Truckers' Association.
 Organization of Farm Loan Association.

HOME WORK:

Organization of five women's clubs.
 Organization of 12 girls' clubs.
 Introduction of home labor saving devices and methods.
 Improvement in food selection and meal planning.
 Improvement in methods of food preservation.
 Home economies effected through home made clothing and millinery.
 Improvement in home sanitation.
 Instruction of women and girls in home dyeing, home decorating and applied art.
 Program of work with Granges and community leagues.

WORCESTER COUNTY**COUNTY AGRICULTURAL AGENTS**

J. F. Monroe, 1915-1917.
 E. I. Oswald, 1918 to date.

HOME DEMONSTRATION AGENT

Miss L. J. Walter, 1918 to date.

Worcester is a county with unusual possibilities in agricultural development and probably no county on the Eastern Shore has made greater progress during the past ten years. It has a population of 22,309. It ranks sixth in land area with 316,800 acres and eighth in the number of farms with 2,334.

It is a county known for its trucking interest as it stands first in the State in acreage and production of Irish potatoes. There are more than 9,434 acres planted to this crop which gave a yield during the census year of 1,276,839 bushels of potatoes. It ranks second in sweet potato acreage, growing

about 1,648 acres with a production of 275,230 bushels. There is also a large acreage of miscellaneous vegetation and small fruits. Worcester ranks first in the State in the value of its vegetables, exceeding \$3,288,226.

In fruits the county ranks high, being third in strawberry acreage with 1,373 producing 1,569,444 quarts of berries, second in apple trees of bearing age and also second in peach trees not of bearing age. It is the leading county of the Eastern Shore in fruit production. Notwithstanding its trucking and fruit interests Worcester has a diversified agriculture. She ranks second in the State in acreage devoted to corn. Substantial acreages are devoted to other farm crops. The county stands sixth in the value of all crops at \$5,749,133.

The livestock industry is substantially represented in that the value of all domestic animals on farms is \$1,288,060. The county stands third in the number of mules with 2,981 and fifth in the number of poultry with 189,443 chickens.

Extension Service Work was inaugurated in the county in 1915. Only one change in the county agent has been made. Therefore the work has progressed steadily forward. The people of the county have been very sympathetic and the county has given good support to the Service.

Some of the accomplishments to which the Extension Service has contributed in the agricultural development of the county are as follows:

SOIL WORK:

One hundred and thirty-seven demonstrations in soil fertility have been conducted in 17 communities.

The use of lime has been increased 25 per cent.

The adoption of the open formula fertilizers by majority of growers.

Cooperative purchasing of fertilizers and savings effected by home mixing.

FARM CROPS:

Seven hundred and sixty-one demonstrations in farm crops in 20 communities have been conducted.

Increased yield of corn by introduction of better varieties.

Improved yield of potatoes by culture and fertilizer demonstrations.

Largely increased acreage of soybeans, alfalfa and clovers, red sweet and crimson.

Tested 11 different strains of seed potatoes on three types of soil for benefit of the industry.

Five hundred and thirty-two farms during 1924 adopted improved practices in growing farm crops.

Adopted the plan of conducting auto tours for growers to visit demonstrations, especially in potatoes.

Aided in control of insect pests and diseases affecting various crops.

Cooperated with Experiment Station in conduct of extended test in use of various fertilizers for potatoes on Worcester types of soil.

Assisted in developing cooperative marketing of potatoes and other crops.

Greater use of inoculation for legume crops.

HORTICULTURE:

Conducted 46 orchard management demonstrations.

Improved quality of fruit by adoption of spraying schedules.

Improved the methods of pruning fruit trees.

Promoted practice of raising legumes in orchards.

Conducted 20 demonstrations in developing home gardens and landscape gardening.

FORESTRY:

Aroused the interest of the people in practical forest conservation.

Conducted 11 permanent demonstrations in nine communities.

Introduced wood lot management, re-seeding to loblolly pines and re-foresting cut over areas by planting demonstrations.

Conducted forest tours.

Fifty-eight farmer-leaders in work developed.

ANIMAL HUSBANDRY:

Conducted livestock demonstrations in 20 communities.
Developed 14 leaders in this work.
Introduced purebred swine through boys' club work.
Demonstrated effective control of hog cholera in cooperation with regulatory authorities.
Four thousand herds treated during past six years.
Developed eight calf clubs.
Seventy-two purebred gilts and boars have been brought into county, raising 680 purebred pigs.
Improved practice in feeding beef cattle.
Largely increased poultry industry.
Demonstrated advantages of culling, better feeding and marketing of poultry.

RURAL ENGINEERING:

Inaugurated 14 drainage projects in four communities.
Assistance given in establishing three tax ditches.
Conducted eight public dynamite ditch blowing demonstrations.
Developed general interest in drainage work throughout county.
Furnished 14 sets of farm building and 21 poultry house plans.

ORGANIZATION AND COMMUNITY ACTIVITIES:

Formed several community organizations.
Cooperated in organization of County Farm Bureau with 14 locals with 512 members.
Assisted in conducting farmers' picnics.
Organization of Farm Loan Association.

BOYS' CLUB WORK:

Developed purebred pig club work.
One thousand and sixty-two club members have been enrolled.
One hundred and eighty-two club meetings held.
Fifty-four clubs organized—potato, calf, sheep and pig.

MISCELLANEOUS.

During six years agent has written 14,951 letters.
Made 11,134 farm visits.
Travelled 63,159 miles by auto.

HOME WORK:

Conducted program work in home economics with 14 Farm Bureau locals and county women's clubs.
Introduced work in foods and nutrition throughout county.
Two hundred and fifty demonstrators in 1920 conserved food to the value of \$91,913.
Number adopting better practices increased 62 per cent.
Conducted demonstrations in proper selecting, constructive renovating, remodeling, millinery and designing of women's and girls' clothes.
Number adopting practices increased 82 per cent.
Conducted demonstrations in home management, furnishing and beautification. This project has been the means of saving thousands of dollars to women.
Twenty-two result demonstrations in home health and sanitation carried through a year.
One hundred and twenty-seven homes adopted better practices in poultry raising as result of agent's work.

COUNTY HOME DEMONSTRATION AGENTS

County	Name	Headquarters
Allegheny	*Bessie Volk	Cumberland
Anne Arundel	*Mrs. G. Linthicum	Annapolis
Baltimore	*Mary Graham	Towson
Calvert		
Caroline	*Bessie Spafford	Denton
Carroll	*Isabelle Cobb	Westminster
Cecil	*Lillian Grimm	Elkton
Charles	*Mrs. Elva Bohannon	La Plata
Dorchester	*Sara Coyne	Cambridge
Frederick	*Elizabeth Thompson	Frederick
Garrett	*Lola B. Green	Oakland
Harford	*Eva K. Schurr	Belair
Howard		
Kent	*Susan V. Hill	Chestertown
Montgomery	*Blanche Corwin	Rockville
Prince George's	*Ellen Davis	Hyattsville
Queen Anne's		
St. Mary's	*Ethel Joy	Leonardtown
Somerset		
Talbot	*Mrs. Olive Walls	Easton
Washington	*Margaret Smith	Hagerstown
Wicomico	*Florence Mason	Salisbury
Worcester	*Lucy Walter	Snow Hill

LOCAL AGENT

Charles and St. Mary's Counties... *Mrs. Leah W. Hopewell..... La Plata

GARDEN SPECIALIST

Madison and Lafayette Aves..... Mrs. Adelaide Derringer..... Baltimore
Administration Building

* In cooperation with the U. S. Department of Agriculture.

EXTENSION SERVICE BULLETINS

These will be sent free of charge to any address upon receipt of application at Office of
Extension Service, College Park, Md.

BULLETINS

- No. 2—Relation of Lime to Agriculture.
- No. 9—Electricity on the Farm.
- No. 10—Improving the School Ground.
- No. 12—Rural School Lunch.
- No. 13—Why We Can Food.
- No. 14—The Seventeen-Year Locust.
- No. 15—Milk Cost Survey, August, 1918.
- No. 17—Boys' Corn Club Lessons.
- No. 18—Maryland Invites You.
- No. 19—Boys' Potato Club Lessons.
- No. 21—Sewing Club Lessons.
- No. 23—Garden Flowers.
- No. 24—Making Pigs Pay.
- No. 25—The Brood Sow and Her Litter.
- No. 26—Cooperative Association Law of Maryland.
- No. 28—Maryland Farm Statistics (1923).
- No. 29—Standards for Seed and Show Corn.
- No. 30—The Marketing of Wheat in Maryland.
- No. 32—Maryland Farm Statistics (1924).
- No. 33—Cutting Production Costs with Farm Machinery.
- No. 34—More Vegetables from the Home Garden.
- No. 36—Lambs and Wool for Market.
- No. 37—Winter Fattening of Steers.
- No. 38—More Tomatoes from Fewer Acres.

